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ABSTRACT

The educational trends identified in this report was those common to the young people of the member states of the Council of Europe. Emphasis is on the three most outstanding trends. The first, the concept of life-long education, involves an extension of pre-school education and continuing education for adults. The second consideration is the adoption of a comprehensive type of common school for the first phase of secondary education. The most uncertain important aspect of the educational process which commonly presents itself is the stage that lies between the common or comprehensive type of school and entry either to full adult employment, military service, or tertiary education at the age of 19 or 20. Other trends are discussed in chapters on the extension of pre-school education; primary education; problems of goals and structures in secondary education; administration, curricula and reform; technical education and employment; the interplay of educational innovation; resources for learning and pedagogical method; assessment and orientation; the training of teachers; school and community; and the international perspective. A concluding glossary records the sense in which certain terms are used in the report. (KSM)

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the education of young people in europe

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THE EDUCATION OF YOUNG PEOPLE IN EUROPE DEVELOPMENTS, PROBLEMS AND TRENDS

by

A.D.C. PETERSON and W.D. HALLS

COUNCIL OF EUROPE
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INTRODUCTION

To identify trends in the education of young people — that is of pupils below the age of tertiary education — which are common to so wide a diversity of peoples as the member states of the Council of Europe, is a formidable task. This report must inevitably select and generalise and, in its attempt to describe those trends which are most significant and commonly shared, neglect much of the detailed experience of individual countries. Moreover, Europe itself affects and is affected by the general world situation in educational development, and perhaps the most important trends of all are those which it shares with its neighbouring continents.

European education, as it enters the eighth decade of the century, is faced with an economic problem which is world-wide and which is best described in the words of the World Bank (as summarised by the International Bureau of Education) : " The unprecedented expansion of education systems, which shows no sign of slowing down, raises grave problems which will lead education, during the decade beginning in 1970, to develop in a very different pattern from the " linear expansion " of preceding decades. Since the increase in educational expenditure cannot continue indefinitely at a pace which in some countries outstrips that of the national product, it is necessary to find solutions in four areas, which are, however, interdependent : (*a*) to look for types of education which will contribute more directly, and at less cost, to rural development, (*b*) to improve the material efficiency and to increase the productivity of education, (*c*) to discover new sources of finance for education, (*d*) to help countries to planify and to supervise the size and organisation of school and university systems. "

The World Bank report is, of course, largely concerned with the so-called " developing " countries, but there is little doubt that in the more fully industrialised countries of Western Europe also, the rising cost of education is going to face governments with increasingly difficult choices between educational and social priorities. However difficult it may be to measure the " productivity " of different policies in education, for instance expansion of pre-school education against expansion of higher education, many governments seem convinced that the attempt will have to be made. Education is a function of the total economy of the society, and although there are some economists who predict a growth in the gross national product sufficient to finance

all desirable developments in education simultaneously, the demands on national resources of other social services seem likely to rule out constant linear expansion even if that were desirable as a model. Nor is it likely that the demands of expanding education can be met from simple transfers from other areas of government expenditure, while there is some reason to suppose, as will be suggested in Section 10, that the role of private as opposed to government expenditure is likely to contract.

It is estimated that the proportion of the GNP devoted to education will have doubled or more than doubled in most West European countries in the generation between 1950 and 1975. This proportion is still likely to continue rising, as societies become more affluent, but two factors seem likely to slow down the pace of the increase. The first is simply the competition from other areas for social benefit, which we have already mentioned. The second is a growing recognition that we may have overestimated the part that education, as opposed to such other social benefits as housing, health services and income redistribution, can play in building a truly democratic society. It may be that we have expected too much from education.

In these conditions of rather tighter restraint on the expansion of educational expenditure, there are certain tendencies which seem common to most member states of the Council of Europe. Of these the most outstanding is the extension of the period over which organised, if perhaps not wholly formal or full time, education may be expected to extend. The concept of life-long education, which has caught the imagination of many European educators, involves a considerable extension of pre-school education for the three to five year olds as well as the provision for continuing education throughout adult life. The case for both types of extension is based on a combination of the need to democratise educational opportunity, the need to improve the " productivity " of education, and a certain reluctance to impose education on those who are, at least temporarily, unwilling to receive it.

At the secondary stage, the same considerations seem to be leading, throughout Europe, to the adoption of a common " comprehensive " type of school, at least for the first phase of secondary education, together with a raising of the age of compulsory education, which is co-terminous with this phase, to sixteen.

One of the most troubled and uncertain stages in the educational process is that which lies between this stage of the common school and the entry either to full adult employment, military service or tertiary education about the age of nineteen or twenty. Economic forces are likely to produce a rapid increase in school enrolments over this age range, possibly even leading to a demand, by the end of the decade, for an extension of compulsory schooling to the age of seventeen. At the same time, the dissatisfaction of the pupils in this age-range with the content and conditions of their education is

becoming more and more articulate. In a number of countries, the " student revolt " which was a feature of universities in the 1960s is spreading to the upper section of the secondary school, and with it goes the politicisation of the upper secondary school pupils. This is probably most noticeable in those countries where, whether because of grade repetition or other causes, the age of completion of upper secondary education is significantly above the legal age of maturity. In such a context, a " linear expansion " of the age of compulsory schooling of the existing type does not seem likely, and more promising initiatives are the moves to make secondary education more directly relevant to work situations by the unification of secondary and technical education, the provision of opportunities to defer periods of education until after the entry to working life, the acceptance of work or social involvement outside school as contributing to the educational experience, and the closer involvement of the school with the community.

It is against this general background that we have attempted to summarise in the following sections the main trends in the education of young people in Europe which seem common to many member States. We would like to express our gratitude to the many colleagues throughout Europe who have sent us the material on which this summary is based, but for the selection and interpretation, for omissions and errors, we must accept the responsibility.

SECTION 1

THE EXTENSION OF PRE-SCHOOL EDUCATION

In discussing the first stages of formal education in Europe, it is easier to identify common tendencies than to find a commonly accepted terminology. Nevertheless an attempt must be made. One difficulty arises from the fact that since formal and compulsory schooling begins at different ages in different countries the term " pre-school " covers the age range 3-7 in Scandinavia, 3-6 in most of the rest of Europe and 3-5 in the United Kingdom. Another is that the term is often used not so much to specify the age range as to identify a particular type of education more directly linked with preparation for the primary school than is the traditional " kindergarten ".

In such circumstances clarity is better served by an arbitrary definition than by none. We shall therefore use the term " pre-school " to denote all education before the age at which school attendance becomes compulsory, but without any implication as to the form of that education. Within that period of the child's life, we shall use the terms " crèche " where the objective is simply to look after children while their mothers are at work, " kindergarten " (sometimes called play-groups) where the objective is only to socialise children and develop sensory-motor and aesthetic capacities through play, and " nursery school " where the objective is specifically to prepare children for entry to the compulsory primary stage, involving often the development of linguistic and mathematical ability. Of the first of these three types we shall say little, since it is not strictly part of educational provision. Nevertheless there is some overlap between crèches and kindergartens and the line of demarcation between kindergartens and nursery schools is becoming increasingly blurred. Indeed one of the common tendencies which we shall find was expressed in the working paper submitted from Finland to the Council of Europe's symposium in 1971 in the words " Kindergartens have come to resemble pre-schools " (in our terminology nursery schools).

The clearest visible tendency in pre-school education in Europe today is the trend to universalise the nursery school as an essential part of the educational experience of all children. The fact that the five to six year old stage is part of the compulsory cycle only in the United Kingdom is of little significance when we realise that 95 % of the five year olds in France, Belgium, and the Netherlands are voluntarily enrolled in such schools or classes, and that even in predominantly

rural Ireland, 55 % of the children are already voluntarily enrolled before compulsory education starts. The lowering of the age of entry to compulsory education to five, which is envisaged in the Federal Republic of Germany by the end of the decade, would be in many European countries little more than a recognition of existing circumstances.

While this tendency appears to be universal, it should be seen against a background of great variation in respect of existing practice and therefore of the starting point from which expansion may be expected. In this respect we may divide the countries of Europe into three general groups. In the first of these, which includes France and Benelux, pre-school education, although not compulsory, is almost universal for the five year olds and widespread below that age; in the second, which includes the Federal Republic of Germany and Austria, it enrols at present about one-third of the children; and in the third, the Nordic group, it enrols less than 15 % (Denmark 27 %). The United Kingdom is anomalous. It falls within the Nordic group in our terminology but includes all the five year olds in the period of compulsory education and provides in the first year of the compulsory infant school an educational experience which would, in other systems, be regarded as appropriate to the last year of pre-school education.

These variations appear to be due more to social and educational traditions than to educational theory or socio-economic variables. A later start to school education has long been a tradition of the northern countries with their long dark winters, and there is a tradition in the Germanic countries of preserving the values of childhood by keeping the children in the home, which is associated with a more formal and academic attitude towards the first school experience. On the other hand, there does not seem to be any direct relationship between the extent of full-time employment of married women and the provision of pre-school education. The Netherlands, for instance, which have an unusually low proportion of married women in employment, have almost universal pre-school education.

One feature which appears to be common to the provision of pre-school education in all European countries, is the comparative deprivation, in terms of pre-school opportunity, of the rural children and sometimes of the children who live near the centre of major cities. The reasons for this inequality of opportunity are, of course, different. The scattered population of rural areas makes it difficult, and perhaps unwise, to concentrate very young children in kindergarten or nursery schools where this would involve travelling long distances, while in the centre of large cities the cost of providing sites for pre-schools is a major inhibiting factor.

It would be false to attribute the general tendency towards the expansion of pre-school education and the integration of kindergarten with nursery school entirely to educational influences. General social

factors — such as the increasing tendency of young mothers to enter employment and, indeed, the " women's liberation movement " as a whole — are having their effect in demanding not only more general provision, but a more continuous school day in systems where the tradition has been for the young child to return to the care of his mother for the midday meal. The needs of the children of foreign or migrant workers are also an additional socio-economic force in contemporary Europe which can only be met by the provision of special facilities in pre-school. The increased number of children who are brought up in high rise apartment blocks of sixteen or more stories has produced a demand for more supervised play space on mother earth.

Nevertheless, the dominant influence leading to these two tendencies has surely been the realisation, much stimulated by American research, that the democratisation of secondary education, so long a European aim, cannot be achieved if children from socially and culturally deprived homes are entering the primary school so seriously disadvantaged that there is no true equality of opportunity.

It had long been realised, of course, that pre-school education played an important part in diagnosing individual handicaps of a physiological nature, which needed special educational treatment, and in providing such remedial treatment. What is new is the concept that whole groups of children from specific social classes, above all the urban and rural poor, are in need of compensatory education in nursery schools if, in the balance of education between home and school during a child's early life, they are not to be crucially handicapped in their progress through the educational system.

This handicap was at first conceived as something which might be set right by a compensatory programme of pre-school education, which would bring these children to the starting point of formal primary school in a position of equality with their more fortunate compatriots. The initial " Headstart " programmes in the USA therefore laid great emphasis on the compensatory value of developing linguistic and mathematical skills which were important for success in the primary school. An early evaluation (1968) of the most effective elements in such programmes stressed the importance of (1) a warm, supportive and stimulating teacher; (2) a task-oriented programme approach; (3) an academically oriented programme format and (4) an emphasis on verbal development. Much subsequent research, in the Federal Republic of Germany for instance, has stressed the importance of this intellectual approach.

Since European experience has tended to show that where pre-school education is left to provision by voluntary bodies and financed to any serious extent through fee-paying, those children who most need it are least likely to get it, the commitment to compensatory education leads inevitably to generalisation of the nursery school as

part of the normal state provision. Moreover, the rapid expansion of nursery schools under the stimulus of this commitment is tending to direct attention to the extent to which all children, and not just the " culturally deprived ", can benefit from a nursery school experience in which the natural play interests of the child are more guided towards the development of linguistic skills or mathematical concepts which will be of use to him at later stages. It is particularly hoped that such pre-school preparation will diminish the great evil of grade-repetition in those countries where children who do not reach a required standard at the end of the school year are compelled to " stay down " and repeat the year's work. French nursery schools are even experimenting with the introduction at this stage of the first experience of a foreign language, on the grounds that at this age children find it easiest to hear and pronounce sounds which do not occur in the mother tongue.

Although the initial impetus to the rapid expansion of nursery schools, rather than of kindergartens, may have been given by the realisation of the need for compensatory education in areas related to primary school performance, there is already a growing tendency to see this as too limited an objective and therefore ineffective. One element in this realisation is due to the increasing evidence that the effects of compensatory pre-school education on academic performance in the primary school are transitory and soon obliterated. Another, more fundamental, but perhaps only now beginning to become apparent, is the criticism that the early pioneers of compensatory education judged its value too much by the sole criterion of whether it helped to redress inequalities of potential for academic success in the primary school. But what if the criteria of academic success in the primary school were themselves in need of revision? It could be that the child from a " culturally deprived " background was disadvantaged, not in terms of developing his real intelligence and his moral and aesthetic capacity, but only in terms of success in the particular academic exercises demanded by the traditional primary school. A 1969 assessment of economically advantaged and disadvantaged five year olds in the USA, for instance, found no significant differences in problem-solving, physical skills or naming and defining, which might be regarded as activities of general usefulness, but they did find significant differences in vocabulary scores and eye-hand motor skills which are specifically important for primary school success.

Taking into account, therefore, the constantly changing state of our knowledge in this area, it is possible to envisage the general trend of development in pre-school education along these lines. In all countries, at whatever the stage of their present development in pre-school education, there is a strong trend towards increased provision at the five year old level, where this is not already universal, and to extended provision at the four and three year old levels. At the five year old level, the practices of the nursery school are replacing

those of the kindergarten, but the values and objectives of the kindergarten are not lost but prolonged into the nursery school. Similarly the values and objectives of the nursery school are being prolonged upwards into the primary school. " The role of primary education will henceforth be much like that of nursery school " says the French report to the Council of Europe's Versailles Conference of 1969, and in the United Kingdom the methods of the infant school are clearly being adopted by the most progressive of the junior schools. What we are likely to see, therefore, is the development of an unbroken continuum in which the tension noted at Jyväskylä in 1971, between " the demand for teaching, for intellectual direction, in the pre-schools on the one hand, and on the other hand the demand of the children for creativity, self-direction and play " will be resolved by introducing the intellectual direction in a play-centred context earlier and prolonging the creativity, self-direction and play longer into the child's school life.

In such an integrated continuum, the points of transition from one school system to another are always likely to present problems. At the earliest stage, it seems probable that, in those countries where crèches are the responsibility of one government authority and nursery schools of another, the crèches will approximate more closely to the nursery school and the control be transferred to the Education Ministry. Similarly in countries where the major provision of pre-school education is in the hands of voluntary bodies, whether lay or ecclesiastical, e.g. the Netherlands and Italy, it seems likely that the control of the Ministry of Education over both the provision and the content and methods of pre-school education will be strengthened. Even with an increasingly unified control and provision of pre-school education, however, there is still the problem of the child's adjustment on leaving the comparatively free, child-centred atmosphere of the nursery school and entering the more disciplined learning-centred atmosphere of the primary school. Already in many countries the concept of the unbroken continuum is serving to diminish the strain of this transition, as the early classes of the primary school become more child-centred in their operation. In some parts of the United Kingdom, the problem of transition is already more one of movement from the primary to the secondary school than from the infant to the junior school.

One way of easing this problem of transition is to establish pre-school classes attached to primary schools, rather than separate pre-school nursery schools. Many countries operate both systems, but in the past the establishment of classes rather than of schools has been more a matter of convenience in rural areas than of pedagogical intention. It is possible that we may see a more deliberate tendency at least to experiment in the direction of deliberate combination of nursery and primary school.

Another feature of the kindergarten, the value of which is increasingly recognised in the nursery school, and indeed in the primary

school, is the involvement of parents in the education of their children. In particular, many studies of the disadvantaged, for whom compensatory pre-school education is demanded, have disclosed the important part played by the educative family *(la famille educogène)*. In particular, there seem to have been a number of more or less successful experiments in the USA and the United Kingdom with compensatory programmes in which the mothers participated, by learning how best to contribute to the pre-school education of their own children. It has even been suggested that in the city centres, where, as was mentioned above, sites for pre-schools are prohibitively expensive, it might be cheaper to train and pay mothers to educate their own children at home than to establish formal nursery schools. Such a concept runs counter, of course, to the demand for pre-school education engendered by the increasing employment of women in the professions, industry and commerce. It might be short-sighted, however, to assume that, in the long run, and in highly industrialised or even automated economies, this tendency will continue unchanged. An educated society, in which young mothers were trained and paid to play a larger part in the education of their own and their neighbours' children in their own homes, is not impossible to envisage.

In any case it seems probable that in the more immediate future young mothers will be encouraged to play a larger part-time role in pre-school education, and, in the present state of our knowledge, this would seem a clear advantage.

One way in which it might be achieved would perhaps contribute to solving another problem of pre-school education where a general European tendency seems to be in conflict with the growing economic stringency mentioned in the introduction to this report. There appears to be general agreement, both among countries in which pre-school education is widely available and where there is a serious shortage of places, that class sizes in nursery schools should be reduced and that the training of nursery school teachers should be as complete as that of primary school teachers. At present, those countries which have the widest provision tend to have the largest classes (often of 40 children) and to give their nursery school teachers an abbreviated training. The United Kingdom, which has the best pupil-teacher ratio and probably a teaching staff as well qualified as any, does so at the cost of having only 8.2 % of the three to five year old age group in nursery schools (although a considerable number of the four year olds will already have entered the compulsory infant school before their fifth birthday).

Clearly, if the countries with wide provision are seeking to reduce class sizes and improve teacher training while the countries with small classes and highly trained teachers are seeking to generalise the provision of nursery schools, an economic method of combining quantity and quality must be found.

The harmonisation of training for nursery and primary school teachers seems an inevitable outcome of the concept of the unbroken continuum which we have mentioned above, and the trend towards it can be seen in many European countries. Yet to staff nursery schools on a pupil-teacher ratio which would allow of small group organisation solely with teachers of this quality, might put a burden on a country's resources which would inhibit for many years the generalisation of pre-school education. The solution which seems to be commending itself in many countries is to supplement the fully-trained staff in these schools with less highly trained assistants, who are not intending to make a career as professional teachers. Such assistants might well be drawn from among the mothers of the children in the school.

To sum up, therefore, the common trend in all European countries, more marked in some than in others and starting from very different base points, is towards an extension of universal education at least to the four and five year olds, with a closer integration of this pre-school period with the already existing universal primary education, in teaching methods and objectives, in the training and status of the teachers and in the juridical status of the schools. In this process of integration, the nursery school is having as much influence on the changing nature of the primary school as is the primary school on that of the nursery school.

SECTION 2

PRIMARY EDUCATION

Primary schools, as the Minister of Education in France said in 1970, have been less affected by controversial reform recently than most other areas of education. This situation is changing, and there are signs that just as the nineteen-sixties were a decade of radical and often controversial reform in secondary schools, so the nineteen-seventies may be the decade of the primary school.

The trend of rapid development in the primary school, however, does not seem likely to give rise to such political controversy as has been seen in secondary education, since it is the result of liberation from old restraints and an increasing share of resources. There is a wide area of agreement about the defects in primary education which require remedy, the relative importance of remedying them and the means of doing so.

The most widespread tendency within the primary phase of education, under whatever form of school organisation this is carried out, is expressed in Resolution 3 of the Sixth Conference of European Ministers of Education, which recommended that governments " should bring the concepts of primary school teaching into line with those which have proved successful in nursery schools ". The ability of the primary schools to respond to this challenge has, however, been greatly enhanced by changes at later stages in the school system, and it is therefore necessary first to identify these.

The realisation of secondary education for all in Europe is, in fact, having a profound influence on the nature of primary education. As long as elementary education was all that a large proportion of the population could expect, it was natural that this should concentrate on ensuring that all pupils acquired the basic skills of reading, writing and calculation which they would need in practical life, together with such civic and moral education as society considered desirable for those whose economic future was, for the great majority, restricted to labouring employment in primary production.

This concentration operated to exclude other areas of education of less directly utilitarian value and to limit education within these areas to the mastering of elementary techniques. The introduction of secondary education for all has removed to some extent these restraints and allowed the educational teaching of such pioneers of early education

as Froebel and Montessori to exercise a growing influence on the content and method of primary school teaching. This tendency has been accentuated by the marked trend throughout Europe for the first stage of secondary education to be given in a common school and therefore for the selection tests controlling entry to different forms of lower secondary education to be abandoned. A movement in the direction of a primary stage in education from the age of 5-7 to 10-12, leading on to an undifferentiated lower secondary stage without any selection mechanism at the point of transition, can be clearly discerned.

In France, the comprehensive secondary school from eleven to fifteen is becoming the general pattern, although remnants of selection pressure remain; in Italy and Belgium, the middle school gives the same free access without tests; in England and Wales, 36 % of the children are now moving from primary to secondary education without any form of selection and, of course, selection has been entirely abandoned throughout Scandinavia. Although the progress of change is proving slower than some of the reformers had hoped, and slower in some countries than in others, the trend is now clearly established and irreversible. It must be remembered that such reforms invariably take a considerable time to complete, particularly where the pattern of the school system is one for local rather than national decision. After all, it took six years from the introduction of the comprehensive school in Sweden before it was fully established as the national system, and, although decisions have been taken in Norway and Denmark, it is not yet universal.

The pattern of primary and secondary education adopted in Scandinavia goes even further to remove the restraints on the methods and curriculum of the primary school imposed by its former separate and terminal nature. The common nine year school, in which the primary phase merges almost imperceptibly into the lower secondary within the same institution, allows curriculum planners and teachers to treat primary education genuinely as a phase in the continuing process of life-long education.

This tendency to avoid sharp divisions and to make of the transition from primary to lower secondary education a gradual process of orientation can also be observed in other European countries. The Italian middle school is institutionally separated from the primary school, but in England and Wales there is a comparatively large-scale development of middle schools with an age range of 8-12 or 9-13, and in the school reform plan submitted by the *Bildungsrat* to the Government of the Federal Republic of Germany it is left open whether the third two-year phase of orientation should be organised as the final stage of primary education or the initial stage of lower secondary.

As a result of these institutional changes, the primary school is much more free to seek its own objectives by its own methods. In particular, relaxation of the pressure to ensure that each child achieves

at the end of each year's work certain pre-determined standards of competence in the essential linguistic and arithmetical techniques is reducing the tendency to insist that children who do not reach these measurable standards should " stay down " and repeat the year's work. It has long been recognised that grade repetition, based on standard tests across the whole of even the restricted curriculum, which was in the nineteen-sixties leading to half the children in some European countries repeating at least one year of primary education, was one of the great brakes on the progress of the individual child and a major cause of school-phobia and wastage in secondary education. In the more free and friendly atmosphere (to use a Danish term) of the primary school today, it is proving possible to diminish if not to eradicate this practice and particularly to do away with the standard tests. The current regulation in France, for instance, reads: " Pupils who have regularly followed the programme of one grade should, normally, pass on to the next. Those who are manifestly incapable of doing so are identified by the teacher, since the use of promotion examinations is forbidden. " The virtual elimination of grade repetition remains, however, an objective still to be achieved in many systems.

The greater harmonisation in objectives and methods between the nursery school and the primary school implies that certain social objectives which were mentioned in the preceding section as important in the nursery school, are equally emphasised in the primary. Of these, the most important is the concept of compensatory education, designed to remove some of the handicaps from which children from socially disadvantaged groups, rural children or girls suffer. The importance of further research and development in this direction is stressed in the Plowden Report (England and Wales, 1966), the report of the Federal German Government (1970) and in government statements from many other countries.

The trends of curricular development, to which this liberation from external restraints has given scope and which are common to most countries of Europe, are not revolutionary.

Primary education continues to be concerned with those basic skills through which we interpret and communicate our experience, language — both spoken and written — and mathematics; but the approach to them is changing, and they no longer play the dominant role in the primary school curriculum which they did when a command of reading, writing and arithmetic was considered sufficient to equip most men and women for life.

The present balance of the curriculum, to which the average primary school is adjusting itself, is well exemplified by the " tripartite " division, officially introduced in France in August 1969. This divides the week into three main sections: fundamental disciplines (language 10 hours, mathematics 5), stimulating activities *(disciplines* or *activités*

d'éveil, 6 hours), and physical education or sport (6 hours). What is significant in this grouping of the essentially familiar curriculum under broad headings is the flexibility which it allows the teacher to group, for instance, all the facets of language teaching in whatever fashion best suits the needs of the particular group of pupils. The rigorous controls of so many half-hours given to reading, so many to writing, so many to orthography, so many to poetry are gone, and language becomes a form of experience and a mode of communication developed in different ways for different children and at different times throughout the week. The controlling force in the teaching-learning process has become much more the interests and needs of the particular group of children or even of an individual child and much less the " course " planned by the educational authorities.

This process of dissolving the barriers between subjects or disciplines in the primary school and treating the child's learning as a continuous and self-motivated process, only guided by the teacher, has been introduced in the Swedish 1972 curriculum by grouping different subjects in " fields of activity " and carried to its logical extremity in England and Wales in the " integrated day ".

There is, then, a clear tendency, carried to different lengths in different systems, towards a restructuring of the primary school curriculum more around centres of interest of the child who is learning and less around separate disciplines which the teacher has brought with her, perhaps from her own studies in higher education.

Along with this goes a closer relationship with the world outside school, a higher value placed on the enjoyment of the physical world through aesthetic activity and appreciation, sport and physical development, and a deeper respect for the intellectual capacity of the young child. All these developments demand more highly trained primary school teachers and new relationships between teacher and pupil which are already visible in many schools but which will take time to generalise.

The teaching of language Resolution (69)2 of the Committee of Ministers of the Council of Europe, that the teaching of at least one widely spoken foreign language should be introduced within the primary phase, is being partially implemented in a number of countries, e.g. France and the United Kingdom ; is universal in the new programmes of others, e.g. the 1972 programme in Sweden ; and is envisaged in the reform plan of others, e.g. the Federal Republic of Germany. Such teaching is essentially oral and is based on the belief that sounds and speech patterns which are unfamiliar in the mother tongue are more easily imitated at this early age. The wide adoption of such teaching is undoubtedly made easier by the audio-visual aids which are now available and becoming rapidly cheaper, but it is doubtful how far it can profitably be generalised until there are enough primary school teachers available who have themselves an adequate oral

competence in the foreign language concerned. It seems likely that over the coming decade with the closer integration of Europe many countries will seek to train enough primary school teachers to include a foreign language in the experience of the primary school child. Opposition to this development comes mainly from those who are concerned, notably in Italy, with establishing first the primacy of the national language in its pure form over dialects or incorrect speech, and who doubt whether children at this age are capable of understanding the structure of a foreign language. There is no advantage, it is argued, in teaching young children to speak incorrectly a foreign language when they cannot yet speak correctly their own. The controversy is therefore bound up with the wider debate about the relative place of formal structure and informally acquired speech patterns in the teaching of the mother tongue.

The most important developments in language teaching are, of course, in the teaching of the mother tongue. They arise from a number of factors, some of which have already been mentioned, such as the recognition of primary education as a phase in life-long education, and the commitment to compensatory education which demands enrichment of the linguistic experience of children whose home background does not involve them in the use of a fully elaborated language-code. They arise also from recognition that the impact on the child of the aural and visual environment of today, provided by the mass media of radio, television and display advertising, is so powerful as possibly to inhibit the development of reading or the more personal use of language. They are supported to some extent by the findings of psycho-linguistics about the nature of language learning.

It had been clear for some time that, in such circumstances, the formal teaching of the mother tongue based on imitation of the best written models, combined with logical demonstration of, and drilling in, the rules of grammar and spelling was failing even in its limited objective. The evidence of failure in linguistic competence was clear in the number of children who had to repeat one or even two grades before reaching the required standard, but the most startling revelation of failure in the cultural field was the discovery that in France, where above all the school system was aiming at the development of a general culture, one adult in two claimed never to read a book after leaving school.

The response of the radical reformers has been to relate the teaching of the mother tongue much more to the spontaneity of the child and less to the correct structure and spelling of the language; to start from the child's own interests and own language rather than from the best models; to encourage children to read individually whatever attracts them; to value spontaneity and vividness in oral and written expression above correctness; to involve the group in the use of language as communication both within the group and between

the group and other persons. There is great interest in a diversity of new methods of reading but no clear indication that any one system is preferable to others.

All this fits in very well with the expansion of the curriculum and the integration of subjects mentioned above, since the teaching of the mother tongue is inseparable from those discovery activities which form the second group in the tripartite division. It fits also with those active methods of organising the learning experience of individuals or groups in the primary school classroom, or indeed outside the classroom walls, which are appropriate to an initial phase of life-long education. On the other hand, it cannot be denied that the new methods of language teaching have set up certain tensions. Can any but the most gifted teachers find enough in the spontaneous utterances of the children to lead them on to sophisticated use of language? If education in literature is to start from what ten year olds choose to read from the corner bookshop, will the teachers not find themselves and their pupils wading through trash? Does not spontaneous group work discriminate even more against the disadvantaged child? It is to the resolution of these tensions and to the development of the teacher as the mediator between the natural language of the child and the language at its richest that we must look for progress in this area of primary education.

In the teaching of mathematics also, a radical change is already being introduced which may be expected to reach fulfilment in the coming decade. The essential of this change is the substitution of mathematical experiences designed to develop in young children an early familiarity with fundamental mathematical concepts for experiences designed to drill the child in useful arithmetical techniques. Once more it is clear that the change is due partly to the knowledge that the child will remain in full-time education and therefore will benefit from a true initiation into mathematical thinking; and partly also to the technological advances which have rendered mastery of many of the arithmetical techniques obsolete. This fundamental approach to mathematics is based on theories of contemporary mathematics and is therefore sometimes called " modern mathematics ". while the drill in arithmetic and sometimes geometry which it replaces was firmly based on the mathematics well established in the seventeenth century.

The aims of this new approach are well exemplified in a French ministerial circular of 1970: " Thus the intention of such a mathematical education is no longer to prepare pupils for active life by giving them the techniques with which to solve problems drawn from ' everyday life ' but rather to ensure that they have a real understanding and a correct approach to the mathematical concepts underlying these techniques. " A typical statement of its content, which varies to some extent in different countries, is based on the directive of the Conference of Ministers in the Federal Republic of Germany.

" Quantities and their relationships, sets of natural numbers and their relationships, fundamental geometrical principles, numerals and systems of notation, divisibility and sets of dividers, sets of non-negative rational numbers and their relationships, sets, relations and graphical representation. " Such an approach assumes, perhaps, a theory of learning which holds that the fundamental concepts of any discipline can be introduced at any age and become more and more fully understood as they are constantly reintroduced in a cyclical fashion. For this view and for a reassessment of the young child's ability to grasp intellectual concepts, there is now some evidence, but further research seems clearly desirable. In any case, the changing nature of mathematics demands newly trained or re-trained teachers even more than the changing nature of language teaching, and the coming decade is likely to be one of considerable dispute and gradual approximation to an agreed method and content.

In the wide area of the curriculum not directly related to the fundamental disciplines of language and mathematics, many of the same features can be seen. In natural science, attempts are being made to structure experiences in such a way that fundamental concepts such as the conservation of energy are " discovered " by the children for themselves. In social studies, the assumption that the child must start from the " heroic " stories of his own national tradition is being challenged by those who see in this the seeds of subsequent prejudice, and a tension develops similar to that between the language of the child's world and the language into which the teacher wishes to initiate him. Finally, the opportunities for creative work in the aesthetic sphere are being notably increased.

Throughout the primary school, then, there is a spirit of liberation. The walls of the classroom are coming down, sometimes metaphorically in closer relations with parents and the community, sometimes, as in the English " Open Plan " schools, physically within the school itself. While retaining its concern for the two fundamental disciplines, the primary school is seeking to awaken the child's interest in his immediate and even his more remote environment, to stimulate the instinct of curiosity, to lead him to " discover " and to " create " for himself but in doing so to introduce him to some of the ordering concepts through which European culture is interpreted. All this it seeks to do in a more friendly and relaxed atmosphere, free from the threat of tests and grade repetition, which should bring to the primary school more of that element of enjoyment which is so notable in the nursery school. The importance of such an initiation to the process of education for the development of life-long education is clear.

It would be false to suggest, however, that this concept of primary education will be easy to achieve or that it meets with universal approval. Its achievement will depend more than anything else on the quality of the primary school teacher, and the developments in teacher

training associated with it are discussed in Section 8 of this report. But there are those who question the wisdom of the whole enterprise. They fear that, in seeking to meet the needs of the mass of pupils, the primary schools will fail to meet those of the gifted; that standards of literacy and of reading will decline, not as the result of the overpowering environment but of a *trahison des clercs*; that pupils educated in the new mathematics will arrive at the secondary school unable to calculate; that the emphasis on enjoyment and spontaneity will erode the long established influence of the schools in promoting a respect for hard work and a feeling for accuracy; that creative writing will produce children who cannot spell, and finger painting children who cannot draw. This conflict is one which is related to deeply felt opinions about the nature of Western European society and is not likely to be resolved on purely pedagogical grounds. Nevertheless, it is upon the issue of it that the future trends in primary education essentially depend.

SECTION 3

PROBLEMS OF GOALS AND STRUCTURES IN SECONDARY EDUCATION

The realisation of secondary education for all, referred to in the previous section, has now been almost accomplished. The recognition of the right of all children to this second stage in the development of their innate capacities has been strengthened by the need for high educational performance in order to promote national prosperity and well-being. Over the last decade, this individual right to education has therefore not clashed in any way with social necessity — although its extension to include the right to tertiary education has recently become the subject of doubts and anxieties. Perhaps, however, the plateau of societal needs that seems to have been reached may prove to be only a temporary feature, so that mass higher education may yet turn out to be the inevitable corollary to the present reality of mass secondary education. In any case, in a democracy, provided the electorate ascribe to it a high enough priority, the individual may surely claim education as part of his inalienable birthright, a right expressed in such slogans as " equality of opportunity ", *la démocratisation de l'enseignement, Gleichheit der Bildungschancen* — for every language spoken within the community of Western Europe uses these terms or their equivalents. The goal is seen to be the maximisation of human talents, both for the benefit of the individual and of society.

If this has become the overriding goal, however, interpretations of how it may be achieved have differed widely, and continue to fluctuate even today. In many countries, a close correlation has been found, through sociological and psychological studies, between educational achievement and socio-economic status at the secondary stage also. Children from poor backgrounds perform less well in school than their more fortunate fellows. This significant fact has led some governments to continue the policy of what has been termed " positive discrimination ", throughout the primary and lower secondary phases. In other countries equalization of opportunity has been interpreted perhaps more narrowly, although everywhere such obstacles to complete secondary education as once existed, such as payment of fees or the buying of textbooks and equipment, have either been abolished or considerably minimized. Progress in this field has been slow, but it has been inevitable.

The procedures for transfer from primary education to the initial phase of post-primary education are dealt with elsewhere, as is the

content of instruction at this stage. It remains to define the objectives and discuss the appropriate structures for the education of pupils whose age-range may be between ten and fifteen. Whereas a broad consensus regarding the goals has emerged, as regards the organisational form in which they should be realised wide divergencies of opinion and practice exist.

The goals which have to be achieved appear threefold. First, it is now recognised that this latter part of compulsory schooling may in some cases have to be devoted to making up deficiencies diagnosed during primary education: no education can be deemed secondary unless the basic, primary skills have been mastered. Whereas previously the tendency was for pupils, no matter what their age, to be retained in the primary school until these deficiencies were remedied, many countries now deem it educationally preferable that backward pupils should pass into lower secondary school and be placed in special remedial classes. Second, for those pupils whose period in lower secondary education may be terminal, some preparation for work must be given, although the main emphasis will be on general rather than vocational education. Lastly, the maximum effort must be deployed at this crucial stage to ensure that as many as possible of those adjudged suitable should be directed towards courses, both academic and non-academic, which give access to institutions of post-compulsory schooling. It is because of the diverse nature of these objectives that widely differing structures for lower secondary education have been propounded. These solutions have not only to be theoretically well grounded, but also capable of practical realisation. For example, in those countries such as France where a form of comprehensive schooling has been introduced, the pace of change has inevitably been determined by the ability to construct purpose-built schools and to train a different kind of teacher. Such constraints, which have been experienced in all countries, have naturally had to lead to compromises which are often far from ideal.

Thus, whilst accepting the objectives, national authorities have differed as to the procedures by which they should be obtained: it may well be, indeed, that given the diverse educational and cultural traditions involved, no common policies for Western Europe as a whole will emerge, particularly as often an internal consensus within countries is also lacking. The principal point at issue concerns the problem of *differentiation:* how, when and, above all, *why* should " selection " (the sorting of pupils according to their educability) take place? The responses to this question will depend upon the particular social philosophy to which one subscribes. Must the education of the gifted pupil be sacrificed in some way to the lowest common denominator of performance achievable by all? Should the freedom of the individual to maximise his talents be sacrificed to the legitimate claim of an equal chance for all, regardless of ability? As in so many educational arguments, liberty and equality appear as partly opposing concepts. Thus,

in some countries during the lower secondary stage, only minor — or even no — differentiation takes place within the period of compulsory schooling. Elsewhere, unified classes exist across the age range, with some setting only for the basic subjects. A few countries stream the age-grades into tracks from the outset of secondary education, and one or two have adopted both setting and streaming devices. All of these possibilities must be examined in turn in order to obtain a clear picture of what is happening in Western Europe today.

Probably the most radical solution of all is that adopted by Sweden. Its unitary system exemplifies the extreme case of differentiation being deferred for as long as possible, almost until the end of compulsory schooling at age sixteen. Swedish arguments for this may be classified as being sociological, psychological and pedagogical. School, as being the microcosm of society, is held to be the institution in which all social categories should mix freely and, in Swedish eyes, this can best be achieved in heterogeneous classes. Moreover, Swedish research has demonstrated that ability and potentialities, both theoretical and practical, cannot be accurately diagnosed at the onset of adolescence. Through carefully controlled experiments, Swedish researchers have come to believe that the total " educational yield " is greater when all children are taught together in mixed ability groups: the bright children are not disadvantaged to any significant extent; the less bright gain positive benefit from being taught with others more gifted than themselves. To these theoretical and empirical arguments must be added one very practical physical advantage: Sweden is a country that covers a vast area, but is comparatively lightly populated, and a school which is unified in as many respects as possible enables a more rational distribution in this context of educational resources.

In other countries, experiments in comprehensive lower secondary education have not been carried so far. The United Kingdom, for example, has many kinds of comprehensive school, some streamed from the outset, others differentiated in the first two or three years (11-14) only by a system of " banding " into very broad ability groups. In Switzerland, the expert commissions of reform now sitting recommend the installation of an " observation and guidance " stage for the age group 10-15, within the framework of an integrated comprehensive school, but with setting and options. In Grade 5 (age 11) French or German (as the second national language) is to be introduced. In the next class pupils will be setted for this second national language, as also for mathematics and the mother tongue. In Grade 7, further differentiation will occur: pupils will have the choice between Latin or English or Italian or pre-vocational subjects — but this choice carries with it a minimum amount of teaching time so that the task of reorientation from one choice to another, where required, will not prove too difficult. In Austria (as in certain German *Länder),* a wide variety of experiments in lower secondary education is already under

way. Some merely require pupils to be setted, but the more important projects may be classified as envisaging an " additive " comprehensive school, or an *integrierte* one, or the establishment of an *Orientierungsstufe*. The " additive " version of the comprehensive school involves sorting of pupils into " tracks ", but with " harmonized " curricula right across the ability range. The *integrierte* form of school (for Grades 5-8: ages 11-14) entails teaching in mixed ability groups, but with differentiation either by straight setting in the basic subjects, or by both streaming and setting. For the experiments with the *Orientierungsstufe* (" orientation stage "), two models are possible. The first envisages what are termed *Stammklassen* in Grade 5, but with differentiation in the mother tongue, English and mathematics — a differentiation which is by no means rigid because transfers from one group to another are possible at any time. The second model envisages differentiation only after the first semester of Grade 5, selection being on a subject basis. This is followed by " orientation " at the end of a two-year period carried out by teachers and school psychologists — although even then parents may request that their child be placed for a trial period in the seventh grade of a selective school.

Perhaps one of the most well-established forms of differentiation is that which occurs in the French " college of secondary education ", or " middle school ", as it is often termed. This dates already from 1963. Differentiation occurs from the very beginning of the four-year course into three tracks: Modern I, for the most gifted pupils; Modern II, for the average pupils; and " transitional classes " for those pupils — at present about 25 % but rapidly decreasing in number — who either need more practice in the basic subjects or who are plainly not capable of theoretical studies. Yet, since its inception, the " college of secondary education " has constantly evolved: a classical option has been deferred till a later stage; harmonization of curricula in the two upper ability groupings has occurred; there has been increasing use of the possibilities during the four-year period of schooling for lateral transfer from one track to another. Experiments have even been undertaken with no differentiation in the earlier grades.

From the above examples certain generalisations may be legitimate. In lower secondary education, the élitist/non-élitist dichotomy, whether represented by a " dual " or a tripartite system, is rapidly disappearing. Within the limits of what it thinks socially desirable or pedagogically possible, every government is seeking to defer differentiation and to hold pupils together, as is usual in primary education. One of the main obstacles to completely mixed ability groups seems to be differential rates of progress in what are generally reckoned to be key subjects: the mother tongue, mathematics and the first foreign language. Whilst it would certainly be wrong to speak of a trend towards the all-out comprehensive formula, the tendency is certainly towards greater flexibility than hitherto.

If lower secondary education, completing the span of compulsory schooling, represents, to use French terminology, a " phase of observation and guidance ", upper secondary education may be deemed to be the " phase of determination ". Although even at the age of eighteen career choices are not definitive, from sixteen onwards the pupil must be channelled in the broad direction of his future career. Many countries have already begun to consider seventeen or eighteen as a possible future date for the termination of compulsory schooling. In this connection, even the use of the term " upper secondary " becomes outmoded. Ministries of Education are concerned (in the words of the theme chosen by Ministers for their next European conference) with the " needs of the 16-19 age group, in full and part-time education " seen as a whole.

In Western Europe, until comparatively recently, the concept of upper secondary education was confined — at least as regards full-time schooling — almost exclusively to the traditional élitist form preparatory to higher education. This form remains, and will doubtless continue to remain, a minority form. But the numbers staying on at school until the age of eighteen or nineteen, not particularly academically gifted, but requiring a judicious blend of general, technical and pre-vocational education in order to prepare for further education at the non-university level or who, with their career intentions less certain, are merely delaying employment, are increasing rapidly. The reasons for the existence of what in England has been dubbed " the new sixth form " are many and varied: there is the undoubted need for better educated young people in the middle ranks of employment; a general social demand for more education also exists; in some countries, the diminished prospects at this time of employment at fifteen or sixteen have also stimulated this prolongation of schooling. One reaction of countries to this problem has been to create technical institutions and technical courses towards which these young people may be oriented (see Section 5). But the same problem of structures is posed as exists already at the level of lower secondary education: should young people, particularly on the eve of taking their full place in society, be segregated into separate institutions? Should not the future manual worker at least be thrown into contact, perhaps by common classes in subjects such as sport or the aesthetic subjects, with the future captain of industry? Would not both stand to gain socially by such contact — and this age, if Rousseau is to be believed, is crucial for the formation of a sense of civic and social obligation and responsibility?

To this challenge many countries have begun to respond. In the United Kingdom, among the various types of comprehensive education, exists the " all-through " comprehensive school for all children from eleven to eighteen. Sweden, also, has recently taken a decisive stepe it has brought under one direction — and where possible under on:

roof — in a combined *gymnasietskola* three types of institution, the *gymnasiet*, the " continuation school " and the vocational school, all of which had previously been autonomous institutions of post-compulsory education. This solution is held to be less socially divisive, to be more sound pedagogically, and educationally in general more appropriate, since lateral transfer between the many sections and options is facilitated. But the rapid growth of this new category of pupils in full-time education poses acutely not only the problem of curricula but also that of methods. Work on these problems has scarcely begun, but what seems to be emerging is a different idea of what is meant by " school " for this age group: the institution which they attend will be less formal, and young people will assume responsibility for their own education, frequenting courses as they think fit, and using the institution in which they are given as a community centre as well as a place of learning. The phenomenal growth in numbers of such young people attending English " colleges of further education " (which are theoretically post-secondary institutions) — sometimes in preference even to traditional academic secondary schools, because the same qualifications may be obtained — attests the popularity of such institutions.

We turn now to the intellectual élite. The tendency in the 1960s was to reduce drastically the number of diverse institutions at which preparation for university education is undertaken. Although Austria and the Federal Republic of Germany still possess some seven or eight institutions of different kinds, the majority of countries have reduced the number to two or even one. Thus the result of this has been to bring together the various specialisms, bringing into closer contact — and sometimes even teaching together — pupils from various sections of a general, technological and aesthetic nature. This harmonization of what had been parallel vertical groupings has gone side by side with a tendency to " hive off " the terminal phase of upper secondary education: thus the Swedes have now created what they term a " middle school " (i.e. intermediary between the unitary school and higher education) for the 16-19(20) age group. In the United Kingdom, a number of " sixth form colleges ", either selective or comprehensive, have been started; in France, the *lycée* created in the Napoleonic era has been truncated also in this way; in the Federal Republic of Germany experimental *Oberstufenkollege* now exist. The rationale behind such moves is not difficult to discern: the earlier age of maturity of young people, their career-oriented motivations and greater independence are all arguments for separating them from their younger fellows — although some countries would argue that the secondary school as a whole will suffer from their removal from it. Yet, even in those countries where the " phase of determination " does not take place as a separate institution, there is general recognition that this terminal period of secondary education is vastly different in kind from what has preceded it.

Within these global structural developments, however, it is fair to say that the pattern of divisions for the academically gifted has become increasingly diversified. The present divisions into classical, mathematical and science, social science, linguistic and technical sections relate directly to the curriculum. Although it is true today that most of these sections in which pupils are grouped are represented in the majority of countries, the actual denominations given to each may differ considerably from one country to another, and are contingent upon the particular " bias " *(dominante, Schwerpunkt)* that characterises them. Whereas seven member countries possess only three or fewer such sections, five cater for six or more. The decade has been marked by the decline of the primacy of the classical sections — so much so that now only about half of the member States of the Council of Europe maintain as a separate entity a classical section as such. (This decline of classical studies is a truly remarkable phenomenon of the decade: as late as 1959, for example, the report of the German Committee for Education, in its *Rahmenplan*, proposed the creation of a special *Studienschule* in which the main concentration would be on the classics.) Moreover, as is to be expected, the denominations of the various sections sometimes mirror the particular interests of individual countries. Consequently, until very recently Cyprus, France and Spain had special agricultural sections, and Spain had one for the seafaring occupations. In countries where a high value is placed upon linguistic skills, such as Iceland and Denmark, special modern languages sections exist, whilst Austria, the Federal Republic of Germany and Italy have separate institutions for those desiring to specialise in the arts. Denmark has one section in which the dominant element is civics. Over the years, however, the main areas of growth have been in the scientific sections and also, particularly in recent years, in social science specialisms, some of which lead directly to employment rather than to university education.

Increasingly, however, the whole concept of " sections " in academic upper secondary education has been called into question. It is argued that, with the movement towards more flexible courses in higher education, the optimum model for upper secondary education would consist in the provision of " modular " courses — subjects broken down into units or consecutive learning blocks which might then be combined in accordance with the pupil's individual requirements. These combinations of " educational units " *(combinaisons d'unités pédagogiques)* would then be evaluated by means of a unit-credit system *(unités capitalisables)*. But much more research as to the kind of " educational units " required — not only of a unidisciplinary but also of a pluridisciplinary nature — is needed before the system can really become effective.

Formerly, secondary education was conceived of as a narrowing process of selection by which the provisional élites of society were

initially picked out. By a process of filtration, the " gold " was sorted out from the " dross ". Today, the whole perspective has changed: secondary education is considered to be a kind of turntable whereby every child is oriented towards his future function in society according to his ability and aptitudes.

SECTION 4

ADMINISTRATION, CURRICULA AND REFORM

The nub of educational changes over the past decade has been the organisational problems posed by a number of conflicting tendencies. On the one hand, the fact that national educational systems have become in some countries the largest annual charge upon the national budget after defence, employing more personnel than the giant industrial enterprises (or, as one French Minister of Education is alleged to have remarked, the Red Army), has meant that their public accountability, in a democracy, must be strengthened. On the other hand, education cannot be classed with industry or commerce, although the concepts of efficiency and satisfaction of consumer needs are also two of its major preoccupations. Moreover, because the school lies at the heart of the local community (and in some countries might also be said to be used deliberately as an instrument of social engineering), it is vital that local interests be served, and that a strong connection be maintained with the " grass roots " from which education sprang. Thus the administrative tendencies that have manifested themselves have been both centripetal and centrifugal.

In general, however, there is a marked trend to devolve more and more responsibility upon those called upon to administer directly the schools. The key words are " participation " and " autonomy ", coupled however with " public accountability ". In every country pressure groups have sprung up, many favourable to the impulses for reform and in agreement with the objectives set by governmental agencies, but certainly not always concurring as to the means whereby these are to be achieved. The influence of such " interest groups " is not a new phenomenon, but they have recently become more vocal and more highly organised in educational matters. Not only pupils, students and parents, but also the press, the trade unions, the churches and a host of other less powerful entities have intervened in the educational debate, and in some cases have acquired greater direct responsibilities in education. This has led occasionally to conflict with the professional, the teacher, who has felt that this sharing of his task with others may lead to a diminution in his status and influence. Recently this suspicion of " outside interference ", although not entirely dispelled, has at least decreased.

At the same time, in many countries the central administration of education has been drastically reorganised to cope with changing

conditions. There has occurred a regrouping of responsibility into three groups of separate components: those concerned with the planning of objectives (here supported by a planning department which has steadily increased in importance); those concerned with the means, i.e. the ways in which the objectives can and should be realised; and finally, a financial section which, since the only ultimate limitation upon educational reform is money, is the arbiter of the other two entities. Alongside this refurbishing of the central administration, there has occurred a systematic devolution of power to local authorities, so far as it is held compatible with the democratic principle. Here three types of devolution may be distinguished. In countries such as the Netherlands, Sweden and the United Kingdom where local co-operation has traditionally been extensive, this has been strengthened. In those countries where a Napoleonic tradition of democratic centralism has hitherto prevailed, such as in France and Italy, local participation has become more usual. The third alternative, that of "cultural federalism", prevails in Switzerland and the Federal Republic of Germany. In both these countries the "partnership" concept, between canton or *Land* and the central government, has become more popular. (This is attested to by the massive Swiss petition of October 1969, signed by 87 000 people, requesting that education be more co-ordinated on a federal basis, as well as the previous moves made by the Swiss Government to alter the Constitution in this sense; in the Federal Republic of Germany, it is attested by the setting-up in 1969, after the necessary change in the Basic Law of the Federal Republic had been made, of the *Bund-Länder Kommission für Bildungsplanung)*. However, upon the issue of local v. regional v. central control, the countries of Western Europe are still somewhat divided. What ultimately is at stake are different concepts of democracy. On the one hand, it is argued, participation in education must be spread as widely as possible; on the other hand, the protagonists of centralism assert that the principle of equality of opportunity is unrealisable unless power proceeds from the centre. To this question, there can be no single answer: factors such as historical tradition, population size and density, and resources available will be determining.

Central governments everywhere have either created new agencies to help them in the task of planning educational reform, or have extended existing ones. In Austria, a School Reform Commission, with five subcommissions, has been functioning since 1969. In Denmark, one notable reform agency is the Curriculum Board of the *Folkeskole*. In England, an autonomous organisation, which is nevertheless staffed by civil servants and draws upon public funds — the Schools Council for the Curricula and Examinations — has gradually extended its influence and the scope of its activities. In France the former *Institut pédagogique national*, renamed the *Institut national de la recherche et de la documentation pédagogiques*, has

been called upon to assume a greater role in research. In the Federal Republic of Germany, a successor to the former German Committee on Education, the *Bildungsrat*, was created in 1965 to promote and advise upon reform. In Sweden, the process of reform, which has probably advanced at a swifter pace than elsewhere, has been largely achieved by the expansion of the National Board of Education. In Turkey, a Strategy and Co-ordination Commission for Educational Reform has been established.

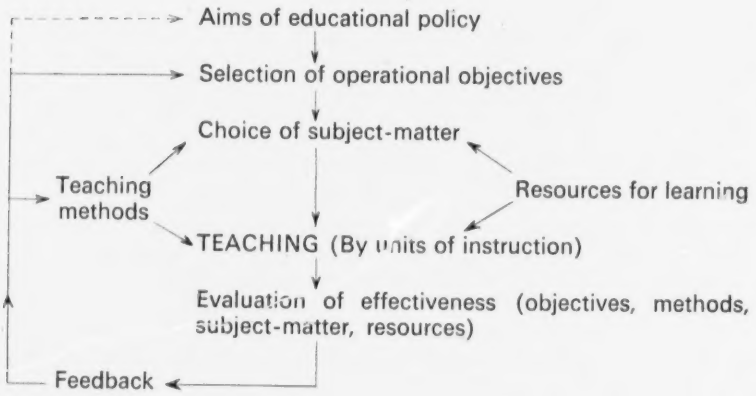
To these agencies, which are often as much concerned with the operationalisation of reform as with its planning, has been added the co-operation of various organisations, often semi-official in character, more concerned with basic research. One thinks of the role played by the Danish Educational Research Institute, by the *Max-Planck Institut für Bildungsforschung* in the Federal Republic of Germany or the National Foundation for Educational Research in the United Kingdom. Moreover, the incorporation of education in overall national development plans, as in France and Turkey, has become a powerful lever for establishing a climate of reform, as has also the installation of planning departments in Ministries of Education and in academic institutions.

Two consequences of the enlargement of the institutional framework of educational reform stand out. Reform proposals are subjected, as never before, to the scrutiny of experts in a wide variety of professions. This means also that the planning of educational systems has become more systematic, more on a long-term basis, and more with an eye to the needs of modern industrial and post-industrial society.

In the elaboration of reform, two themes have dominated the decade: that of educational structures (which is considered elsewhere), and that of the curriculum. It is now realised that structural reform accomplishes little unless it is accompanied by a complete rethinking of the curriculum. This Latin derivative, first used in English merely to denote " a course of study ", has now been adopted in many languages. It is frequently used to signify the whole process of learning within the framework of formal education, whether activities take place within the classroom or outside it, and even whether they are planned and intentional or incidental and coincidental to formal instruction.

Since the spotlight has been focused on curricular reform, this has naturally led to a reconsideration of the foundations of curricular development. It is now accepted practice that generally curricular reform must be a cyclical process which includes a number of sequences. The first and most important step is the translation of the general aims of educational policy, which have been laid down by the politicians, into operational objectives. Subject-content, the " matter " of instruction, must then be selected as a function of these goals, as

must also the most appropriate battery of teaching methods and resources for learning. The system is termed a cyclical one because there must be a built-in process of evaluation of the suitability of subject-matter, the role of the teacher and the methods and means at his disposal, and, last but not least, of pupil performance. This " feedback " is then used to bring about a periodic revision of the curriculum. Since this process should be as continuous as possible, it is an important component of the concept of " rolling reform " which has dominated, for example, Swedish education for almost a decade. The process may be represented diagramatically as follows:



The elaboration of this simple form of systems analysis — to which most curricular process may be reduced — led to a closer scrutiny of the psycho-pedagogical theories of Piaget and to the adaptation to the European situation of North American curriculum theory expressed in the work of educationists such as Bruner, Tyler, Bloom and Guilford, whose approach, like that of Piaget, was primarily psychological. At the same time other theories, more strictly pedagogical in nature, such as the German one of *exemplarische Lehre* (paradigmatic learning) and the English one of " specialisation " became more widely known. Curriculum planners are, however, now learning to weigh psychological and pedagogical considerations against philosophical, sociological and economic ones. The growth of curricular research institutes involving all the interested parties in education is significant proof of the fact that the era of determining what to teach and how to teach it by " rule of thumb " procedures is now gone for ever.

The necessity for curricular reform was experienced increasingly as syllabuses in many countries grew by accretion, so that the charge of encyclopaedism was levied against them. The growth of new knowledge and the lesser importance ascribed to traditional subjects meant that fresh formulae for curricula had to be worked out. At the very highest level " new " subjects were demanding a place in the school curriculum: psychology, sociology, information science and electro-technology, to name but a few from a list drawn up in Denmark. The developments in primary education described in Section 2 have had a similar broadening effect at this earlier stage. The concepts of " general culture " and of the hierarchical ordering of knowledge (what in German is termed the *Kanon der Fächer*) have had to be drastically revised to accommodate to changing circumstances. The idea now seems to be gaining currency that, if individual needs are to be adequately served, once a certain basic culture has been assimilated, every pupil should be afforded the opportunity, so to speak, of " constructing " his own course of study as a function of his needs and aptitudes. By a system of electives, or " building bricks ", the optimum education can be devised for each individual — one that serves his own tastes and interests but is also compatible with the legitimate requirements of society. This conception, which first gained ground in higher education with the spread of the " unit-credit " system for courses successfully followed, is now being extended downwards into secondary education. There is no doubt that this procedure will be expensive to implement, because it demands a high degree of individualisation of instruction, an individualisation that can perhaps only be achieved by the introduction of educational technology to assist in the learning process.

Yet, whilst educational technology has been generally welcomed as the handmaid of reform, the pace of " mechanisation " of the curriculum has recently slackened. This is partly due to the high capital expenditure it entails, an outlay not always recoverable by the saving in labour costs resulting from the reduction in the number of teachers required. The cost of computer-assisted learning (CAL), for example, which has been tried out in some countries, can be exorbitant. One must also acknowledge that there exists an innate conservatism within the teaching profession which is cautious concerning " mechanical learning ". But there are other, ultimately more valid, reasons for the lesser priority now being assigned to what in the early 1960s looked to be the most promising educational adjunct since Gutenberg invented printing. Results of the use of new technical aids in the field in which they have up to now been most employed — in the teaching of modern languages — have not always been encouraging. It is alleged that this application of behaviourist psychology, with its stress upon " conditioning ", leads sometimes to boredom and a decline in motivation among pupils. (Yet, as will be seen elsewhere, there is no doubt that part of the credit for the recent

spectacular rise in the quality of foreign language teaching must be attributed to the use of audio-visual techniques). However, the phenomenon of educational technology (which is dealt with at greater length elsewhere) has yet to be brought into proper perspective. By the year 2000, what one German authority has predicted may well be reality, at least for the older adolescent: 40 % of instruction will be given through class teaching, 40 % through technological equipment, and 20 % by individual assistance from a teacher (for it is claimed that the use of technical " hardware " will enable the teacher to devote more time to smaller groups, or even individual pupils).

The transformations of the curriculum over the last decade have been accomplished more smoothly than might have been expected. Changes in primary and upper secondary education are dealt with more fully elsewhere, but some generalisations may be in place here. Whilst a wider choice of options has been made available to the pupil, a trend may be noted progressively to diminish the number of subjects studied during the course of secondary education — a " lightening of the load " that surely few will regret. Accompanying this has been a radical pruning of the content of each subject, and in some cases, a drastic restructuring. Nowhere is this more striking than in mathematics and science, which merit special consideration.

In some countries, where once the mathematics taught contained no knowledge discovered after Descartes, " new mathematics " has almost completely taken over in the secondary as in the primary stage. This represents an updating of the nature and usages of mathematics in a way which, it has been found, is intelligible to a wider age and ability range than conventional algebra and geometry. At the same time, it has been possible to give the more gifted pupils an introduction to more sophisticated aspects of knowledge involving mathematics, such as computer science, statistics and probability theory. (Incidentally, this refurbishing of the " numeracy " component of the curriculum has gone hand in hand with a review of what is essential for " literacy ". The researches of Basil Bernstein and the replication studies of his work made in Germany and elsewhere have demonstrated the overriding importance of the communication skills for educational achievement. Thus, in the teaching of the mother tongue the emphasis has moved away from literature to language for use.)

In the field of the sciences, similar curricular changes have occurred. Thus the classical concepts of the physical sciences are less taught, and the more up-to-date notions associated with the nature of matter and energy have taken their place. This has resulted in closer links between the sciences, a phenomenon of integration which is considered more closely below. Meanwhile, in biology the focus upon ecology and topics related to the human situation has

been sharpened. Here the accent is decidely contemporary. Not only sexual education, but themes such as those relating to the environment have found their place in the normal programmes. Another development of note is the attention drawn in some countries, particularly Belgium and the Federal Republic of Germany, to the moral implications of the explosion of scientific knowledge.

On a more general plane, the great debate on educational structures — particularly over the introduction of a common lower secondary school (e.g. the second stage of the Swedish unitary school, the Italian *scuola media*, and the French *collège d'enseignement secondaire)* — which continued throughout the 1960s, sparked off in the latter years of the decade a movement for curricular reform. Here the key words are " differentiation " and " harmonisation ". The act placing all pupils under the same roof led inevitably to a demand for a curriculum as little differentiated as possible. This was held to be as integral a part of the process of democratisation as structural reform, not least because it allowed for the possibility of lateral transfer. Nor must it be forgotten that, in some countries, the slogan of " secondary education for all " was not accepted until comparatively recently, with the result that the educationally disadvantaged pupil spent his final years of schooling in the upper grades of a primary school. But the new co-ordination of all forms of lower secondary education led also to a harmonisation, so far as possible, of the curricula intended for the different levels of ability. This in its turn brought about an upgrading generally of subject content and the opening up to a much wider range of pupils of subjects such as foreign languages, which had traditionally been reserved for an élite. Results, moreover, seem to demonstrate the wisdom of this step: " more can do more ", albeit some will do it at a slower pace, is an educational maxim now widely accepted.

In the European context, three alternative curricular patterns may be discerned in lower secondary education, at least for the initial one or two years: (*a*) a common curriculum for all or almost all children in the relevant age cohort, such as in Italy, the Netherlands and Sweden; (*b*) harmonized curricula, as in France, to allow for lateral transfer from one ability group to another; and (*c*) separate curricula for separate schools, as in the Federal Republic of Germany (although the Reform Plan submitted by the German *Bildungsrat* in 1970 proposed the unification of curricula between the three types of secondary school at the lower stage). The dominant trend is towards the establishment of common curricula, a move which has been facilitated by the creation of an " orientation stage ", which exists now in the countries mentioned above, as well as in Austria and Belgium. In the Netherlands, the first year of secondary education is in fact termed a " bridge year ". The curriculum for this year, designed for the majority of children, since it is not untypical of that of many countries, is given below:

Subject	*Number of periods per week* (50 minutes each)
Dutch	4
French	4
English	3
History	2
Geography	2
Mathematics	4
Biology	2
Music	1
Drawing and manual skills	3
Physical education	3
Private study	2-4
Total	30-32 periods (1968)

Interestingly, in Turkey, a " core and course " curriculum (basic subjects plus options) has been introduced at the lower secondary stage, an innovation which elsewhere is only under consideration for the upper secondary stage.

Another very recent development in the secondary curriculum has been towards what is loosely termed interdisciplinarity and pluridisciplinarity. It has already been pointed out that, in primary education, such a principle (known, for example, in England as the " integrated day ", and in Austria as *Gesamtunterricht*) has long been practised. Before attempting to describe this tendency in relation to secondary education some definition of terms is required. " Interdisciplinarity " seems to be one end of a continuum of which " pluridisciplinarity " represents the other: neither are, in fact, " pure " terms. " Interdisciplinarity " appears to imply a complete dovetailing or linkage of certain elements of subject-matter drawn from different but related fields of study which, when combined, produce a new, fully integrated subject. Examples of this are not easy to find. One might surmise that computer science, which combines elements of logic, mathematics, information science, even of " linguistics " in the broadest usage of the term, with applications in a variety of disciplines, from history to business studies, comes very near to what is meant by an interdisciplinary " subject ". But as yet interdisciplinary subjects, as so defined, are rare at school level. On the other hand, pluridisciplinarity, in which elements drawn from a variety of subjects are collocated in new patterns, is more frequent. Perhaps the best-known example of this is in the Federal Republic of Germany, where a subject known variously as *Gemeinschaftskunde* (" community studies "), *Sozialkunde* (" social studies ") or even *politische Bildung*

(" political education ") is compulsory throughout the period of secondary education. The focus is upon the modern world and, depending upon the detailed curriculum laid down by the *Land*, elements of history, geography, economics and civic and social topics are taught as a coherent entity. Similar curricula, with varying content, are taught in Austria, Sweden, Turkey and elsewhere. A novel proposal from Denmark also seeks to establish an integrated course in which figure history, geography and biology.

Another important recent trend has been the development of integrated science courses at the secondary level. The old pattern, whereby science was first taught as a unity in the primary school (although often in the very elementary form of " nature study ") and then later diversified into the physical and biological sciences, is in the process of modification. In France, under the heading of the physical sciences, elements of chemistry have long been taught with physics. In the United Kingdom, " general science " has long been considered a " soft option " for those pupils not considered capable of tackling the various specialised branches of science. But the attempt being made (as, for example, in Turkey) to teach the three main sciences as an integrated subject is an innovation that is likely to be generalised, as scientific knowledge continues to expand.

The main difficulty encountered to date with these hybrid subjects is that of finding teachers competent and keen to teach them. In secondary education, particularly, the teacher tends to look upon himself as a subject specialist, in the narrow sense of the term. One way out of this dilemma is through the development of team teaching, with a topic by topic approach to which the various subject specialists concerned can all contribute.

There is no doubt that interdisciplinarity and pluridisciplinarity as pedagogical principles will be more and more applied. They correspond more closely to the needs of the educated man in the modern world. Children, particularly the less gifted, are more strongly motivated by this approach. On the other hand, critics — and much criticism has come from the historians who fear for the future of their discipline in schools — are concerned that the intellectual rigour associated with the mastery, albeit incomplete, of one discipline, strictly delineated, will be lost. They argue that choosing interesting themes from a number of fields is no substitute for the mental effort required in studying, in logical order, clearly-defined knowledge in one subject area. The case for or against is not yet proven.

Some mention must also be made of extra-curricular activities. The rigid distinction between formal classroom instruction and activities — which may be just as educational — that take place outside school hours, no longer holds. What were once termed extra-curricular activities are now seen as an integral part of the educational process.

In the United Kingdom, with its long tradition of education as the formation of character, such activities have always played a large part. In France recently there has been a large extension of such activities, with a slightly different aim. Two examples are the *classes de neige* and the *classes vertes* in which children annually spend periods in the mountains in winter and in the country in the summer. The Germans have developed the system of *Studienreisen* (" educational journeys "). Examples could also be adduced from many other countries. One of the original motives for such activities — that of compensation for cultural deprivation — no longer applies with such force. This is because of better living standards, as well as the existence of the " parallel school " of the mass media — not always educational, these ! But there is liable to be a need for such out-of-school activities for a long time to come, so long as the school is obliged, willy-nilly, to take over the role once played by the home.

Such, therefore, is the picture of reforms that emerges in relation to various aspects of the administration and the curriculum. Greater systematisation has meant that a more critical gaze has been cast upon the reasons for reform itself. Clearly just trying out " something new " for its own sake will no longer do. Swedish education has often been held up as providing a rationale of procedure. Before the introduction of a new curriculum for upper secondary education, surveys were made of " consumer demand ": pupils, students and, above all, future employers of *gymnasiet* graduates and university professors who would receive certain of those graduates into higher education were canvassed as to what knowledge they considered to be of most use. The Dahllöf Report, which gave the results of the survey, is a model of its kind. Its main findings included the fact that employers and teachers alike in higher education required young people to have a good grounding in the mother tongue, in modern languages and in civic and social rights and responsibilities. This was useful information for the reshaping of the curriculum. Its method of procedure has been criticised as being too sociological, too geared to the needs of the labour market, and too lacking in an ideological base, but at least it represents a considerable advance on the old criteria for educational reform, which were often founded on vague philosophical or psychological generalisations. Granted that " consumer satisfaction " is not the only premise on which to proceed, it is certainly better than nothing.

One of the most obdurate problems that European educationists have to face is the fact that reforms, carefully elaborated and tried out experimentally, must then be generalised over the whole school system. The key position in this process is occupied by the teachers, and it is upon them that efforts must be concentrated. The nature of those efforts will be discussed elsewhere, but meanwhile it must be noted that some means of rewarding those teachers who are ready

to " update " their knowledge and pedagogical competence must be found if reform is to be effective.

Another obstacle to effective reform is the general conservatism of public opinion in educational matters. The role of the mass media in publicising changes in educational structures and curricula is now recognised. On a more immediate plane, parents themselves need to understand reforms which directly affect their children. (How many parents in how many countries have complained, for example, that they do not understand the " new mathematics " that their children learn?) One of the most useful innovations of the decade has been parent involvement in the running of the schools. In France, for example, this takes the form of representation on the administrative council of the secondary school ; in Turkey parent school associations have developed. The concept of " participation " in education is essential if reforms are to be implemented, and is also an important factor in the process of democratisation.

Perhaps also worthy of mention here is the changing role of the inspectorate in many countries. The inspectors are the direct link between the administration and the teachers, and often with the parents. Whilst still acting as — to use the English phrase — " the eyes and ears of the Minister ", their role is no longer one of merely controlling and checking. Rather have they become the stimulators and propagators of educational reform, often assisted by assistant inspectors or teacher advisors. To be most effective, there must be a " feedback " from the schools to the promotors of reform. This communication in reverse can be assured by inspectors. In some countries, such as in the Federal Republic of Germany with its " experimental schools " (*Versuchsschulen)*, observers from the reform agency follow the reform's progress on the spot. In others, such as Sweden, teachers are specially detached from their duties and make the rounds of schools where reforms are in progress. Only by such devices can the process of " rolling reform " become a reality.

SECTION 5

TECHNICAL EDUCATION AND EMPLOYMENT

The most appropriate relationship between education and the world of work has proved one of the most obdurate problems of the past decade. No longer did it suffice to train the mass of pupils, hived off from an élite, in the acquisition of a few elementary manual skills or to inculcate in them a rudimentary literacy and numeracy, as still occurred in some countries in 1960. Such a bare minimum of instruction no longer satisfied the rising aspirations of individuals nor the exigencies of largely industrialised societies. The higher level of qualifications required to sustain their economic patterns, the pace of change wrought by automation and mechanisation, the transformation in international trade within Europe effected by the creation of EEC and EFTA and outside Europe by such phenomena as decolonisation — all these were compelling factors of the highest significance for educational systems. For the individual, no less significant was the greater equalisation of educational opportunity and the virtual abandonment, at least within the period of compulsory schooling, of the élitist concept of education. This indeed posed further dilemmas for the educationist because vocational education, so conceived and so called, had up to then carried with it overtones of the second-rate, a form of training designed for the future hewers of wood and drawers of water.

Thus it became increasingly recognised that " vocational education ", as it had been practised hitherto, was no longer suitable for the social and economic conditions existing in highly industrialised countries or those on the way to becoming so. It could no longer be a question of teaching the young person still in school the rudiments of a particular trade or craft to which he would then devote the whole of his working life. Narrow specialisation and the acquisition of a limited range of manual skills were no longer fitting objectives. The " constant of change " in industry, agriculture, commerce and the ever-widening diversity of " service " occupations demanded the development in the pupil of a high degree of flexibility and adaptability. Training at school must therefore be for a broad band of employment, and hence pre-vocational rather than vocational. At the same time, it had to become technical, even technological in so far as a modicum of theory had to be combined with technical " know-how ". Whereas the term " vocational education " conjured up the process of preparation for a particular occupation or a very narrow range of occupations,

that of " technical education ", as at present used in Euro-English, embraces the much wider concept of orientation towards a whole gamut of employment (and thus *pre*-vocational) possibilities, whether these are broadly industrial or commercial, relate to manual skills or intellectual capabilities, or — as is more likely — to a blend of both.

To some extent, moreover, even the term " technical education ", although now generally employed, does not subsume the whole relationship between education and work. As used in opposition to " general education ", it is already becoming rapidly outmoded. As will be seen in the discussion on curricula, the preparation for an occupation, if it is to be effective, includes a corpus of knowledge and the assimilation of attitudes which are derived as much from " general " as from " technical education " proper. Not only does technology pre-suppose an initially high level of general education, but the necessary qualities of adaptability and character in employment require within technical education itself at least a " maintenance operation " of the basic subjects. Moreover, for preparation for an occupation to be complete it must include a strong element of social, civic and even moral education. The Soviet Union has recognised this in the adaptation of the so-called " polytechnical principle ", which affirms that polytechnical education is no more than the applied form of general education. Thus everywhere a process of integration of general and technical education is in train — one which is of particular relevance for employment.

For the purposes of what follows, however, " technical education " will normally be used as the generic term.

Despite the measures taken to promote technical education, its acceptance by the general public has been reluctant. The democratisation of schooling has made higher education accessible to a much wider socio-economic spectrum than the bourgeoisie, who have traditionally been the " consumers " of higher education. Meanwhile, the " royal road " to the university, and from there the path to high occupational status and reward, has nevertheless remained via the academic secondary school or sections. This has been true even for higher technological education: for entry to the prestigious *grandes écoles* in France or to the more well-known among the German technological universities, the normal prerequisite remains outstanding attainment in the field of general education. By contrast, the university institutes of technology in France and the newer technological universities and the even newer " polytechnics " in Britain have been considered a *pis aller* for the less gifted secondary pupil. Although this situation may be changing rapidly, so long as this paradox continues to be apparent to parents European public opinion will not accord overmuch esteem to secondary technical education.

Moreover, this is in part a cultural problem. The common heritage of antiquity has given rise within Europe to what Recteur Capelle

has termed " the Mediterranean mentality ", in which intellectual prowess and bookishness rather than technical competence are the hallmark of the cultured individual. Such a southern mentality has its Anglo-Saxon counterpart in the English phrase (which may be traceable to Locke), " A gentleman does not soil his hands ", except *in extremis*. A preoccupation with mechanical and manual accomplishments as against one concerned with the humanities and intellectual achievements has been deemed to be vulgar. Yet, as Recteur Capelle has also pointed out, technology may truly be reckoned to be a humanism, a component of a liberal education, because its mission is to free men from ignorance, from the drudgery of routine. A re-education of attitudes towards technical education, already successfully acomplished in the USA and USSR, would seem to be a prime task for educational policies in Western Europe. Practical steps towards this end have indeed already been taken. In some countries, technology has been injected into the curricula of the general lower secondary school, and even into what has hitherto been characterised as upper *academic* secondary education. A new interpretation of general education is in fact being attempted: the old concept, which had accepted with reluctance a scientific component alongside its traditional literary, social and aesthetic elements, had lacked a specifically technological dimension.

A general preoccupation with technical education over the period is in fact reflected in national legislation. During the decade, important measures to regulate technical education, either as part of enactments relating to the whole educational field (as witness the Dutch Post-primary Education Act of 1963 — the so-called *Mammuthwet* — which was timed to enter into full application in 1968) or particularly aimed at the improvement of technical instruction. Here only a few of the latter measures may be cited. Thus the British Industrial Training Act (1964) decentralised part-time industrial and commercial training, created a number of boards in which occupations were grouped and, whilst giving business and industry a large say in the training process, required them to assist financially in it. The Dutch established new rules for apprenticeship under an act of 1966. The new French law on apprenticeship, passed in 1971, which replaced the *loi Astier*, likewise demanded a financial contribution from employers. By a law of 1966, Iceland established a Council for Vocational Training. Germany passed three laws in 1969 which provided for pre-vocational training within the school curriculum, stressed the link between general and technical education and introduced two important concepts " training by stages " (*Stufenausbildung)* and the " building brick model " (*Baukastensystem)*. The latter aimed at increasing the possibilities of transfer in extended training and retraining. In addition, the German reform plan for education in 1970 proposed a four-stage system of education — elementary, primary, secondary and " finishing " — with the latter stage involving the release of apprentices from work

on a substantial scale. In 1971, France also passed two other laws relating to full-time instruction in the *collèges d'enseignement technique* and also dealing with the problems of retraining, upgrading and updating (*reconversion, promotion et actualisation)* within the context of continuing education. It would seem, therefore, that legislation for technical education recognises that this is a continuum, the organisational links within which must be strengthened so as to extend to the whole of the working life.

Despite the fact that specialised technical education in some countries has been deferred until about the age of fifteen (although others are still firmly in favour of an earlier beginning), the need for propaedeutic courses to initiate into the world of work the mass of children whose education will probably not extend beyond the period of compulsory schooling (these, even in 1980, will still comprise a substantial portion of the age group, with only 20 % to 40 % proceeding on to higher education) has been realised. In some member States, this has been accomplished through a formal system of structures and curricula. Thus in France, from the age of 13-plus, the lower secondary stage contains a group of some 20 % of all pupils who, whilst still continuing their basic education, study the processes of production, learn manual skills including the use of simple tools and machines, and are made aware of working conditions in employment. In Austria, a " polytechnical year " to bridge the gap between school and employment has been propounded. In Britain, the secondary modern and comprehensive schools have introduced curricula which, in the spirit of the Newsom Report (1963), are vocationally oriented, being " practical, realistic and offering a choice ". In the Federal Republic of Germany, a new subject termed *Arbeitslehre* (roughly translated as " work technology ") has been introduced experimentally in some *Länder*. In all such attempts, the stress is on preparation for work in general. It may not be inappropriate to note that employment forecasts for Western Europe predict that the numbers required in agriculture will continue to diminish as " industrialised farming " takes over, that those required in manufacturing will soon reach a plateau, and that the greatest expansion in numbers will be in the field of " service occupations ". The introductory courses mentioned must therefore be general, serving not only to give pre-occupational experience but also — and perhaps this is even more important — to foster right attitudes to employment itself.

The deferment of entry to technical education until a later age than hitherto has in fact been a marked feature of present tendencies. In part, this has been a reflection of the response to labour market needs, which not only require a much greater content of general education but also underline the fact that it is now impossible to prepare, at school, for the wide variety of occupations (the International Labour Office has enumerated some 60 000) now available. The argument for deferment has been reinforced by fresh views on the

nature of intelligence which have gained ground over the last decade. It is now widely held that specific abilities, particularly those relating to practical aptitude, are not detectable fully until about the age of sixteen and consequently any early allocation to technical education would lead to the misplacing of pupils. There is no doubt either that the argument regarding equality of opportunity has also played a part: if the road to higher education still leads mainly through the academic sections of the school system, it would be morally wrong to eliminate too many from that path by committing them too early to technical education. Despite these views some countries — notably Austria, Belgium and the Netherlands — hold that, from the point of view of motivation and for other valid reasons some types of secondary education should from the outset be career-oriented, or at least become so after a " bridge " or transitional period has been completed.

The shortage of technical institutions has meant a more severe limitation on entry than many nations have thought desirable. This is to some degree linked with the shortage of teachers for technical subjects. Because of the very nature of technical subjects, their content is constantly changing. Teachers recruited from industry thus quickly lose the capacity to update their knowledge. Moreover, in a time of what has been, up to now, unparalleled economic prosperity, it has become impossible for the public sector to compete in salaries with private enterprise. The solution would seem to lie in much greater links between the State and enterprises of all kinds, with part-time teachers coming in from industry for short spells before returning to their normal employment. Private educational initiative can also do much: in the Netherlands, " vocational education " accounts for only 5 % of pupils in State institutions, although private ones, whether commercial, industrial or religious, train many more. On the other hand, in some countries the unpopularity of and lack of esteem for technical education has led to a dearth, not of places, but of candidates. In some cases, this has been tackled effectively by improved educational and vocational guidance services. In Norway, for example, pre-vocational and vocational guidance (by a law passed already in 1947, but substantially amended in 1962) is in the hands of a central Labour Directorate depending not on the Ministry of Education but upon the Ministry of Labour. A similar close co-operation exists between employment and educational authorities in Sweden. A more urgent priority for technical education, greater co-operation and better diffusion of information, would seem to be the vital ingredients for success in achieving higher standards.

Because the questions of curriculum and structures in technical education are so closely linked, they must be treated together. It is very difficult to discern any common pattern throughout Europe, but the courses offered would seem to be at three levels of competence. The lowest level is largely manual and may take a variety of forms: preparation for semi-skilled, skilled or artisan occupations; for domestic

occupations; for agriculture; for the retail or distribution trades; for office posts; and for catering and hotel occupations. Schools are now offering such courses, which lead to a recognised qualification which may be terminal or, occasionally, give access to more advanced courses in other technical institutions. Such courses, it must be emphasised, still comprise a large element of general education. For the Netherlands, for instance, it is estimated that pupils will spend two-thirds of their time on general subjects and one-third only on career-oriented studies. An intermediate level of competence, more difficult to define, is at what might be described as the technician level, in which a larger theoretical content is blended with practice. A few examples may give a clearer idea of what this level entails. In France, whereas the *collège d'enseignement technique* is designed to provide for the lower level of competence, the *lycée technique* prepares, in one of its courses, for a technician qualification *(brevet de technicien)*. In Italy, the *instituti technici* offer lower courses, but the specialized *licei* offer an intermediate qualification. In Britain, a wide variety of such technical qualifications exists, but perhaps the level is best exemplified in the Ordinary National Diploma, taken usually in a college of further education. The highest level of competence may be designated as technological, leading to full qualifications usually obtained later in higher education or under the aegis of an external professional body. In Germany, special *Gymnasien* exist and like the *lycées techniques* in France open access to technical forms of higher education, but access to higher technological education is also usually available through secondary schools of general education.

For the first level of competence, designed for operatives who are usually skilled or semi-skilled, the types of institutions in existence have been placed end-on to the termination of compulsory education, or even overlap with it. Courses given in them may be one, two or even three years in duration, and are pre-vocational rather than vocational. The elements of general education given usually comprise the mother tongue and mathematics, as well as social and civic education; for office occupations, occasionally a foreign language is also studied, and this is becoming more usual. Practice is stressed more than theory, and an element of realism is often introduced by giving pupils experience on the factory floor or elsewhere for short periods. This need for " real-life training " is everywhere apparent, but the arrangements made are often not very satisfactory.

The second type of institution, planned to produce technicians or executants at a higher level, is usually over-subscribed, so that some selection for entry has to take place. Certain problems arise regarding this type of institution. The qualification given at the end of the course is now usually designed to allow for promotion to higher grades later, but access to these is difficult. It is argued also that lateral transfer to the higher-grade institution should be allowed during the course.

In French terms, for example, this would mean that a candidate preparing for a *brevet de technicien* should be allowed possibilities of transfer to prepare for the *baccalauréat T*.

The third type of institution, now more usually entered at the end of compulsory schooling, is clearly intellectually the most demanding, requiring an initial high degree of general education, with the ability to grasp abstract concepts and to understand the theoretical aspects of technology. Such institutions may be industrial, agricultural or commercial. Alternatively, they may be specialised in some other way: thus in Austria there exist schools of the aesthetic arts *(Musische Gymnasien)*, in Iceland there are nautical schools for the preparation of marine officers, and in Spain, schools of applied arts. The question of the degree of specialisation desirable is again posed. In Sweden, for example, although the technological line in the combined *gymnasietskola* has at the outset four options — mechanical, construction, electrical and chemical engineering — some classes are taught in common despite this specialisation. The terminal qualification also gives rise to problems. Should success in the final examination allow general access to higher education, or confer only a limited right? (In German terms, should the qualifications be equivalent to the *allgemeine Hochschulreife* or to a *Fachreife* only?). Here the tendency (as in the Netherlands) is to ensure that technical education gives as wide an entry to higher education as possible. This is surely right: a pupil at school who decides later that specialised technological education is not what he wants should be allowed to rejoin the mainstream of higher education.

There is as yet no consensus as to whether technical education, when continued after the end of compulsory schooling, should be part-time or full-time. Except in Germany and Austria, apprenticeship, which has been the classic method of combining study with work, seems to be declining. The disadvantages of the old apprenticeship system, the principal of which may be the danger of undue specialization — in Germany the numbers successfully passing their apprenticeship and embarking on the trade for which they have been trained are declining — are certainly manifest. But the system did ensure that contact with reality which is clearly desirable. In any case, the compulsory form of part-time education given in the *Berufsschule* from fifteen to eighteen has been greatly admired elsewhere. Britain likewise favours part-time (but not compulsory) technical education and, like Holland, has evolved a massive system of " day-release " from work for one or two days a week, complemented by a generous provision of evening classes. Yet another development has been the growth of " sandwich courses " in which spells of education alternate with spells of employment. On the other hand, France still seems to prefer as much full-time education as possible.

If on the issue of part-time or full-time schooling there is still no agreement, there is now general accord that in one sense no technical education can be terminal. During the course of his working career, the worker will still require " refresher courses " or perhaps even complete reorientation to a different sector of employment. Thus permanent (or lifelong) education is the necessary corollary to a good system of technical education. As this concept becomes more fully realised, it will obviously have a backwash effect upon the content of courses in technical education given to young people. At the moment, for example, the French are considering extending the possibilities of periodic re-certification of initial qualifications acquired at the outset of employment. In another context, the Swedes have floated the concept of " recurrent education ", one feature of which would be to allow the worker to save up educational leave which he may take later at an appropriate moment in his working life.

What has emerged from the past decade is the vital necessity for a very close collaboration between the educational authorities and employers. We have moved on from the stage when it was considered that woodwork and metalwork taken in school were part of vocational training (they are now rightly accepted as education in the aesthetic and kinaesthetic arts and skills). But the outstanding question, one of *harmonisation*, remains : how can what is taught in technical education be " married " to the ever-changing requirements of the world of work? How can the legitimate professional aspirations of the individual be reconciled with the sometimes volatile exigencies of the employment situation? And finally, how can technical education, so long the poor cousin of general education, be integrated into the mainstream of education *tout court*?

SECTION 6

THE INTERPLAY OF EDUCATIONAL INNOVATION, RESOURCES FOR LEARNING AND PEDAGOGICAL METHOD

Whatever approach is adopted towards educational planning, whether it is that of straightforward " social demand ", analysis of manpower needs or cost-effectiveness, national authorities have the right to expect that innovations should produce a more " efficient " education system. Those reforms introduced over the past few years have already had far-reaching repercussions on the deployment of resources and their application in the teaching situation. Other reforms, still under way or not even beyond the drawing-board stage, will undoubtedly have similar effects. The purpose of this section is to demonstrate what these have been or what they are likely to be, and to consider the problems that are raised.

Chronologically, over the past decade the most striking revolution of all in this respect has taken place in the teaching of modern languages. The Council of Europe's Major Programme in Modern Languages, pithily summed up by one expert as " a modern language for everybody by 1980 ", but perhaps less ambitiously characterised as " a modicum of bilingualism for everyone " has undoubtedly stimulated teaching in the schools. Over half the member countries report that experiments in the teaching of a foreign language are proceeding at the primary level, and almost all now make available to large numbers the possibility of learning one at the secondary level. Although only time will show whether all pupils are in fact capable of learning a tongue other than their own, the movement now appears irreversible. Much will depend on what meaning is attached to the word " learning " in this context. The most significant conference organised by the Council of Europe, that held at Ostia, spoke of the acquisition of the four skills, and placed the main stress upon oral aspects of communication.

The problem here is patently one of motivation. It is certain that at the primary level young children are easily motivated, and positively enjoy the wide range of courses and material, particularly for the teaching of French and English, that have been devised to meet this new demand upon the schools. But those pupils whose mother tongue already has a wide international currency may perhaps be less easily persuaded of the necessity to speak a language other than their own; those pupils whose chances of visiting the country whose language they are learning are remote, perhaps because of geography, may also require greater stimulation. On the other hand, countries such as the

Nordic ones, whose commercial and industrial contacts with the outside world are very frequent, but whose own languages are inadequate for the purposes of international communication, will find little difficulty in encouraging the learning of foreign languages. The Dahllöf enquiry showed, for example, the great importance that business, industry and higher education attached to foreign languages in Sweden. Elsewhere, at the upper secondary level, where motivation is always primarily a function of career aspirations, interest is (and will continue to be) " patchy ". The pupil will be interested perhaps not in mastering all the skills, but only those that are of immediate use to him, which may be reading rather than speaking the language. But the analysis of objectives for each level of education has not yet been completed, and much work requires to be put in hand in order to determine more precisely what should be the content of language teaching at each different educational level. Allied to this is the delicate problem as to which foreign languages should be taught. Where the country has officially more than one language, policy is clear: the other language (or languages) must have priority. For the rest, over the past decade French and English have tended to be most popular. It may well be that a supply of linguists in less popular languages, whether these are European or not, should also be built up. A common linguistic policy is a *sine qua non* for that harmonisation of programmes which is one of the declared educational aims of member States of the Council of Europe.

The main feature of language teaching recently has, of course, been the advances brought about by the introduction of audiovisual and audiolingual methods, involving a massive use of educational technology. The experience has now been carried on long enough to allow some evaluation of effectiveness. Paul Rivenc, one of the pioneers of these methods, has sounded a salutary warning note:

" Audiovisual aids are pitiless mirrors. In the hands of an amateurish, dry or pusillanimous teacher, they reflect the image of a class that is disorderly, or mechanical or empty. Manipulated by a teacher who is liberal, who has real personality, they reflect a teaching which appears easy and effective, imbued with all the human richness that arises from a constant process of communication. " It is now generally conceded tha t these active methods, based upon a stimulus-response theory of learning, are invaluable in the initial stages, because, backed by technological aids, they provide a framework for the " stamping in " of the basic patterns and structures of the foreign language. But it must not be forgotten that once the fundamentals of language have been acquired in this way, the truly creative act of communication has still to be learnt: the manipulation of responses in order to express meaning in new patterns, with new lexis and in different contexts from the originals. Moreover, the danger has been shown to exist that language " drill " can quickly become tedious, even to the youngest children. Some doubt is now expressed about the most expensive

refinement of all, the language laboratory: it would appear that a more useful concept is that of the language *workshop*, where the teacher has at his disposal a whole battery of aids. Similar doubts have been expressed about the quality of some of the courses that have been marketed commercially. Some, for example, may be linguistically perfect, but lack the degree of sophistication and professional expertise that children have come to expect through the mass media. Here, as in other areas of language teaching, much research requires to be undertaken — perhaps at the European rather than the national level? Objectives, as has already been mentioned, need to be defined with greater precision for each level of ability and for each age group, dependent on the future use of the language. The findings of contrastive linguistics need to be incorporated into learning material, particularly textbooks. Investigations into the correct teaching order of a foreign anguage require to be undertaken: should this order be based upon logical, pedagogical or frequency considerations, or upon all three and, if so, in what proportions? Studies need to be made of the cost-effectiveness of the adjuncts to language teaching, which are today one of the most expensive items of capital equipment that schools require. Many practical difficulties need to be overcome. Perhaps the example of Turkey may be cited as being not untypical. In 1969, the Turkish government authorised the establishment of a new centre for the teaching of languages. The centre encountered problems of financial constraints, precisely because of the expensive nature of the equipment required. It also found that three hours only of teaching time in the middle school was hardly sufficient, that large classes inhibited progress, and that teacher training was a great obstacle. (This latter is a problem that all countries have encountered: to introduce languages into say the primary school, non-specialists have to be trained to do the job — in the United Kingdom, for example, one figure mentioned has been for 60 000 teachers).

Nevertheless, it has become almost an article of faith that all pupils should be capable of learning a foreign language. This may well be so, but the capacity for teaching it in the conventional school situation may be limited. This is why many countries are following with great interest experiments being carried out with learning a foreign language at the pre-school level. The French experience is encouraging: at the *école du boulevard Murat* in Paris, using puppets, songs and inexpensive aids of all kinds, it was found that after six months youngsters had acquired an active vocabulary of 600 words of English and could string together many everyday sentences.

Yet another interesting expedient has been the creation in France and the Federal Republic of Germany of bilingual sections, mainly in the *lycée* and the *Gymnasien*. These began in 1969. In France, they consisted of additional teaching of German — three hours a week, plus two hours of " guided activities " in the language, using the foreign assistant extensively; and the teaching in German of one

subject drawn from a list comprising physical education and sport, music, art and handicraft. By the end of 1971, some thirty schools were participating in this unique experiment. In Hamburg, it has been suggested that Anglo-German sections should be created on the same principle. Although this kind of undertaking presents problems, experience in foreign schools abroad suggests that it is a viable method: it has been reported that at the *Lycée français de Londres*, even when less than half the children in a class were native French-speakers, most of the rest of the class — mainly English-speaking — did become bilingual if taught solely in French. This is, of course, to carry one stage further the experiments described above.

Thus many problems remain to be resolved before the language barrier within Europe is surmounted. The audiolingual approach has not yet resolved the question of when techniques of reading and writing should be introduced. Moreover, it now seems clear that such an approach is not entirely suitable for pupils who tend to be either over-active or over-passive, or even those who prefer abstractions. Those falling into these categories are, however, few in number. The greatest lack, however, is in the number of teachers with a sufficient oral command of the foreign language. This fact, coupled with the shortage of teaching time available — it has been estimated that at the very beginning an hour and a half a day would be an optimum time allocation — will still make the success of learning languages hazardous. In the 1970s perhaps the provision for block exchanges of school pupils may yet prove in the end the least costly method of realising a bilingual Europe.

Whilst the use of educational technology is now universal in language teaching, in other fields its use is more problematic. The massive growth of technological aids has been one outstanding characteristic of the past decade. Many factors have promoted this: on the one hand, there has been a desire to improve the quality of instruction; on the other hand, technological " hardware " has been seen as one means of individualising instruction. A third motive — perhaps a long-term one — has been a laudable desire to reduce costs by replacing labour (represented by the teacher), which is always the most expensive factor, by capital equipment (initially expensive but ultimately yielding a high rate of return). It has been urged that the use of audiovisual aids, of teaching machines of all kinds, of programmed learning texts, and of the computer should increase the efficiency of learning. The pupil will appreciate a sequential approach and will derive benefit from it because it is to a large extent self-learning and thus can be individualised; the teacher, freed from a number of routine tasks, will be able to deal individually with pupils' difficulties.

The use of audiovisual equipment has already been discussed under developments in the teaching of modern languages. Here it is proposed to discuss the Skinnerian revolution brought about by the

use of programmed learning. A remark made by Mr. Jonas Orring, Director General of Secondary Education in Sweden (to whom the authors are much indebted for much of that which follows), regarding the role of the producers of many teaching aids is significant: he blames them for the phenomenon of what is termed in the USA " hardware in search of a function ", and shrewdly asserts that the aims and objectives of education must never be sacrificed to mere technological auxiliaries, which must be adjuncts to the curriculum rather than dominate it.

In practically every member State, experiments have been in train with programmed learning and CAI (Computer Aided Instruction). In Austria, for example, a Research Centre for Programmed Instruction was established as early as 1965. The most common form of such instruction has been by means of programmed books. Reports indicate that these do not appear to have been a very great success. Doubts about their effectiveness — as indeed about the efficacy of all programmed learning aids — began to set in after the CAI Conference held in Amsterdam in 1970, when reports of experiments made as early as the 1950s demonstrated rather ambiguous results. (As regards computer-aided instruction proper, there was also about this time a marked diminution of interest on the part of industrial concerns specialising in computers. This may of course be no more than a reflection of the natural reluctance of governments to commit themselves to a rather daunting outlay of capital costs.) It was felt that programmed texts, although perhaps more effective for non-verbal rather than verbal subjects, had not succeeded in motivating pupils sufficiently, where they had been tried out. It was alleged also that they imparted mere snippets of knowledge; that the pupil felt frustrated at having continually to refer to different pages of the text; that preoccupation with the need to indicate the *correct* response prevented adequate concentration upon why other responses were *wrong* — a very valuable pedagogical exercise; that, in any case, the pupil experienced irritation at having to indicate the correct response rather than being able to give his own version of what was correct; finally, the whole process ultimately became tedious. The same arguments were held to apply to programmed learning by computer, although built-in flexibility did allow the pupil to engage in a kind of " dialogue " with the machine, particularly in branching programmes. Moreover, with a computer, the pupil's overall performance can be stored and evaluated later, so that special programmes can be made available for his own particular needs in the light of his progress. Indeed, computer-assisted instruction was held to be particularly valuable when the computer was merely used for " drill and practice " purposes, but the teacher played his usual role as well. Otherwise, this kind of self-instruction may well deaden the creative ability of the pupil. Perhaps only those subjects (or parts of subjects) where the content allows for few alternative answers are really suitable for this form of educational technology.

It may be appropriate here to mention that computer science *(l'enseignement de l'informatique)* is now being taught as a separate discipline in France, England and several other countries. Two approaches would appear to be possible. In France it is being taught experimentally in connection with other disciplines as a means of analysis and reasoning; and eventually from theory one passes to practice, and to the machine itself. The other approach is more derivative: one starts from the machine, demonstrating what functions it can perform and showing the nature of programming, in order to arrive at the basic theory.

Despite this rather unfavourable report on CAI, Mr. Orring nevertheless believes that the computer will come into its own in the 1980s. He links it with the concept of individualised instruction: a pupil will be able to draw from the resource library a CAI course, with texts, tapes and visual components — a " package " or " kit " which will provide him with a complete learning technology. However, if this is to happen, a complete reorientation of the teacher's role would seem to be essential.

If doubts are still expressed about the effectiveness of the computer, other technological aids have flourished. The tape recorder has undergone a boom at the expense of the record-player, largely because of its greater facility and flexibility. Likewise, film loops and films have become more widely used than film-strips and slides, principally because of their intrinsically greater appeal. In science, for example, they have been used as a convenient method of presenting experiments which had previously been demonstrated before the class by the teacher. In a comparatively short space of time, by speeding up a film, can be shown chemical processes such as crystallization or biological processes such as the hatching of eggs, which would take days or even weeks to observe otherwise. Nor have other new aids been neglected. In social studies, for example, games and simulations are being tried out experimentally in Britain, and many " kits " of equipment for project work have been devised. All this of course is not to deny that the older teaching aids — down even to the humble blackboard and chalk — retain their usefulness. To all these aids, moreover, should be added those that indirectly serve teaching, but directly serve the teacher. Already in 1967, Mr. Capelle had underlined the necessity of providing the teacher with " the material services necessary for the carrying out of his work ". The modern teacher must have at his disposal facilities such as the videotape recorder, the electronic stencil cutter, the overhead projector and the roneographing machine if he is to function more efficiently.

By far the greatest impact, however, is being made by radio and television — particularly the latter. Although still considered as an " optional extra " rather than an essential, TV nevertheless represents the largest potential for the substitution of labour (teachers) by

comparatively inexpensive capital. In large institutions, this can be done by closed circuit TV so that, for example, a mathematics lesson can be relayed either simultaneously, or as required, to all pupils in the same year-grade. But it is through the national TV networks that lessons by experts are being brought into the smallest rural school. Some notable achievements have been registered, for example, in Italy, and in the Federal Republic of Germany, where the Bavarian *Telekolleg* and the Hesse *Funkkolleg* are outstanding examples. There are signs, moreover, that in some countries such as Britain, where schools television is also very highly developed, educational technology may be near to achieving cost savings. (At the level of higher education, with the British Open University courses which rely mainly on radio and television, such a breakthrough has already been made.) This does not of course signify that face-to-face teaching will become obsolete. As with other auxiliary aids, it merely means that the teacher can be liberated from many routine tasks in order to devote himself to more essential ones.

In some countries, moreover, other aspects of " distance teaching " have also been very highly developed. In Sweden, of necessity because of its wide geographical dispersion, in outlying areas correspondence courses supplemented by occasional visits from a peripatetic teacher are no novelty. In France, the *Centre national de télé-enseignement* caters by correspondence for no less than 40 000 pupils of primary and secondary school age.

The problems associated with the use of educational technology are manifold. Perhaps two are of sufficient importance to be treated here. The first is undoubtedly the danger of dehumanising the teaching process. All aids are a novelty for the first few months of their use in the classroom. But boredom, dislike of routine, and monotony become the characteristic attitudes of pupils where the teacher leans too heavily upon mechanical gadgetry. The second problem relates to the attitude of the teacher himself. The teaching profession — perhaps because of its very character as the hander-on of the cultural tradition — embodies an innate conservatism, coupled often with a distrust that springs from insecurity. The teacher is wary of anything that smacks of professional " dilution " and which he views perhaps as a threat to his own position. He must be encouraged to recognise that all aids to his vital work, whether in the form of human beings or of machines, enhance and in no way diminish his ultimate responsibility. Just as the doctor has to assist him a receptionist, a nurse, perhaps even a dispenser, as well as a battery of technological aids ranging from an expensive X-ray machine to the humble weighing machine, the teacher should welcome the presence in the classroom of an auxiliary (perhaps a young teacher under training), the help of a technician and adequate secretarial support services. All too often teachers, highly qualified and expensively trained, sometimes comparatively highly remunerated, are wasted on tasks that are routine and even menial, which could be

performed with little or no expertise, and which elsewhere society rewards at a correspondingly lower level.

Pedagogy rests upon an axis whose two poles are, on the one hand, learning to work as a group, learning together in a co-operative effort, and on the other hand, working as an individual, learning — like Rousseau's Emile — in a one-to-one relationship with a tutor. In the past, force of circumstances and press of numbers have meant that all too often the group method — without however the accompanying lesson of the value of co-operative effort — has been the sole method of instruction. The rationalisation of teaching techniques has now made possible for the first time the individualisation of the learning process. The Swedish school reform, whilst already postulating as late organisational and pedagogical differentiation as possible, has insisted upon the ultimate goal of making the teaching dispensed as appropriate as possible to each individual pupil, each of whose educational needs are, by definition, infinitely varied. Mr. Orring, in a paper given at the Stockholm meeting of the ICEF in 1969, cited as an example the individualisation of instruction that had been effected in vocational schools by the use of educational technology and rationalisation techniques. In order to train motor mechanics, the content of the course had been broken down into a number of phases. The pupil under training works at the practical operations connected with these phases at a number of " learning stations ". Each of these " stations " is supplied with the necessary mechanical apparatus, instruction manuals, pictures and diagrams — even, where necessary, with a prepared tape recording on the tasks the pupil has to perform. Armed with these, the pupil is able to work independently, pacing himself and " learning by discovery ". Such a system may lead to considerable economies of scale: for example, where previously sixteen car engines had to be supplied to a class, now, since the work has been broken up into phases, two engines stripped down to their component parts are sufficient. Not that the new system has no disadvantages. One drawback is one that would arise anyway: the more capable pupils run quickly through the phases of the course and may then have to stand idle until their less capable fellows have caught up. The other disadvantage refers to what was said at the outset: there is a lack of co-operative effort, of learning to work as a member of a team. This is more easily remedied: at some stage learning problems must be arranged so that tasks have to be performed jointly with others.

Other countries have also seen group work as the necessary complement to individual instruction. The French have tried to promote both. In primary and lower secondary education, they have initiated so-called " guided work " classes *(travaux dirigés)*. Such classes derive from a long tradition, based as they are on the pioneer ideas of Miss Parkhurst's Dalton Plan, Washburne's Winnteka Method, the work of Ferrière, Claparède *(L'école sur mesure* — " the made-to-measure school "), Dottrens and Freinet. Such a principle postulates

active methods. In practice, it may take the form of a teacher using the time to go round (and half-classes are recommended) to the pupils individually and explain their difficulties. A further purpose is to teach the pupils how to work independently as, incidentally, is done in the first year of Swedish upper secondary education. It may also take the form of individual work cards *(fiches)* being distributed to each pupil, which may contain either questions on fact to which the pupil must find his own answers, or exercises that he must work. There is undoubtedly great value in such an approach, which is already widely used in British primary education.

If the instructional ideal is " total individualisation ", the role of the teacher must change significantly. He will become a diagnostic agent, whose mission will be to present the pupil with the subject-matter and learning resources appropriate to his individual needs, together with what Thorsten Husén has termed " experiences " (because not all communication of knowledge need be verbal). Thus the teacher becomes as much a manager of resources and guidance counsellor as a dispenser of knowledge. One corollary of this that has been suggested is that the teacher of the future may no longer be required to teach the whole of his subject. Already in modern languages the concept of three kinds of subject specialist has been mooted at Council of Europe conferences: the language expert, the literary expert, and the " life and civilisation " expert. Such an idea has not yet been worked out in practice (although of course it is common at university level) and is clearly only viable in the large secondary school.

If individualised instruction becomes a reality, it may well best fit in with the completely ungraded secondary school, where year groups are not held together as a unit for all subjects, and in which no devices of streaming or tracking are necessary. It will also be one of a number of other forms of instruction. Where the lecture rather than the lesson is appropriate, the teacher may find himself, either alone or in team-teaching with his colleagues, instructing large numbers at once. On the other hand, where the instruction must take the form of a dialogue in which all the group must participate, the number of pupils may be ten or less, depending on circumstances. This is the reverse of the medal. But individualisation of instruction, according to many authorities, remains the ultimate aim. As Husén remarks: " After all, why not emulate Philip of Macedonia, who gave his own son Alexander an Aristotle? "

As the concept of lifelong education gains ground it may well produce a Copernican revolution in traditional schooling. Already Sweden is contemplating a more flexible form of education, so that those pupils who have no wish *for the moment* to remain in school once compulsory schooling is over may leave, but " save up " those years of education which they could have had, and " spend " them

later, perhaps in their twenties, when they have a clearer idea of what kind of training they wish to pursue. The growth of tertiary institutions such as the British colleges of further education, already receiving large numbers who would otherwise have remained beyond the age of sixteen in secondary education, is bound to have an impact upon the traditional school structures. To some extent also, adult training will relieve the pressure upon what might be termed " first schooling ". It is now recognised that this initial period of education is no longer sufficient, in any case, to impart all the learning necessary for the whole span of working life, and that " permanent education " is more effective because there is greater motivation among mature adults than among adolescents. Such permanent education may also mitigate the need for early selection.

Although lifelong education is for leisure as well as for employment. it is the vocational aspects that up to now have been highlighted, The French legislation of July 1971 on vocational training (already referred to elsewhere) specifies that " lifelong vocational training is a national obligation. It means a basic training and further education for adults and young people who are already in employment, or who are about to enter working life ". The German Vocational Training Act of September 1969 postulates " a new orientation to vocational training " which would comprise initial vocational training, further vocational training and retraining. (There is some dissatisfaction at present with the specialised apprenticeship system, with over 500 different specialities.) In the Netherlands, there is a stress initially on a polyvalent (broad-based) training rather than specialised skills. As one expert, Dr. Fabius, puts it: " Elementary technical schools provide a general background, but training in the enterprise that immediately follows should be specialised and intensive. " In 1971, EEC issued a policy statement which spoke of a necessary " adaptation of national education systems " to deal with " training and further education of ... young people whose training must be sufficiently polyvalent to enable them to adapt themselves as necessary later on ". Thus the pattern that appears to be emerging may be expressed schematically as follows:

general education → general vocational training (polyvalent) → specialised vocational training → updating, upgrading and retraining. Whereas the first two phases may well belong to the initial period of schooling, the latter two fall clearly within the category of permanent education.

If such a pattern is adopted one difficulty which has always been present to some extent will be accentuated: that of providing adequate practical training. Perhaps the example of the Netherlands, where there is a very rich variety of vocational educational facilities, may demonstrate this: practical opportunities are needed not only in technical fields and in the commercial sphere, but also in agriculture, in the

distributive and catering trades, and in a wide diversity of socio-pedagogic fields relating to cultural work, to social welfare and community development, to personnel management, to child protection and medical services, and to physical education and sport. The problem is, clearly, how to provide sufficient work-experience without disturbing unduly those sectors of activity in which it must take place. In most countries this question remains unresolved.

This section has been generally concerned to point up issues that are just emerging as new methods of instruction make their impact upon the traditional school, new resources for learning are brought into play and new concepts regarding the duration of education itself are translated into practice. It makes no excuse for being largely speculative, because all countries are still in the process of experimentation. By the year 2000, the forces bearing down upon the school through educational technology, through systems analysis approaches and management techniques, may well have transformed schooling as we know it today.

SECTION 7

ASSESSMENT AND ORIENTATION

The process of assessment, orientation and guidance is being affected throughout Europe by two conflicting tendencies. Docimologists in many countries have been concerned for some time with improving the validity and reliability of existing examinations. At the same time the function of these examinations has been changing with the gradual democratisation of secondary education, from one of selection and prediction to one of orientation and guidance, in which verifiable reliability is of less crucial importance.

As long as the function of a test or examination — words which should now be regarded as interchangeable — is to select from the mass of pupils those who are to be admitted to a privileged form of education conferring life chances superior to those of their fellows, it is of the utmost importance that the test should be seen to be objective, impartial and conducted with the greatest possible degree of accuracy. It must also be capable of recording very fine distinctions between the performances of candidates. As soon as its function becomes one of guidance, however, and its results are therefore no longer decisive for the career prospects of the individual, it can afford to be more subjective, less open to verification, less fine in its distinctions and consequently more individual in its assessment.

The operation of these conflicting tendencies can be clearly seen in relation to the selection tests once used so widely to determine which children should be admitted to complete academic secondary education in the grammar school, *gymnasium* or *lycée*. In the fifties, the attention of docimologists was concentrated almost wholly on methods of improving the predictive validity and reliability of these tests. It was in this context that the objective, multiple-choice test, pre-tested and standardised over large populations, was first introduced to European school systems. With the widespread change to non-selective middle or secondary schools extending throughout most of Europe at least to the age of fourteen or fifteen, the importance of verifiable reliability in tests given before this age has greatly diminished. From being publicly administered and crucially important selection tests, they have in many cases become internally administered, relatively unimportant, elements in a process of continuous assessment and guidance. In this new role, the work of the docimologists in striving to achieve exact comparability over the whole child population, expressible in reliably calculated figures, has become largely irrelevant.

Attention is now concentrated, therefore, on two later stages in the pupil's educational experience. The first of these is the year in which compulsory education is completed; the second is the terminal year of the upper secondary school, and therefore the point of transition to the universities or other institutes of higher education.

At both of these stages, some pupils will move, at least temporarily, out of full-time education into active life, while others proceed to the next educational stage.

Assessment has, therefore, a multiple role to play. It is providing a terminal certificate — a record of the pupil's educational standard and achievements — which is his passport to employment; it is providing guidance to the pupil who is uncertain whether he should continue in full-time education and if so, on which track; and it is providing evidence to selectors on which they can judge which pupils should be admitted to higher education, or in some cases still, to upper secondary education.

Let us consider first the situation in the terminal year of compulsory education. A clear tendency can be observed here to regard the primary purpose of assessment as being orientation and guidance rather than prediction or selection. This is most obvious in those countries which, like Sweden or certain districts in the United Kingdom, are prolonging non-selective or " comprehensive " secondary education to the end of the secondary stage, that is to some age between eighteen and twenty-one. What is required from the assessment here is simply that it should guide the pupil into that track which best suits him for the final stage of his secondary education. This has the advantage that the same process of assessment can more effectively provide guidance both for the pupil who is entering active life, and for the one who is remaining in full time education.

Even in countries where entry to the academic pre-university course in upper secondary education still depends upon a certain level of achievement in the middle school, there is a growing tendency to measure this achievement by more continuous, global and subjective procedures and to rely less on the strictly controlled, more verifiably reliable terminal examination.

Thus in France as well as in Sweden the process of differentiation, by which a pupil determines whether he will remain in full-time education or go out to work, is a continuous one, stretching over the last two years of compulsory education. By building up a profile of the pupil's performance, related to national norms by means of the nationally standardised tests, the Swedish teacher is able to give the pupil and his parents objectively based advice on which course should be pursued. This assessment will, of course, also be both global and continuous, in the sense that it takes into account the

whole personality of the pupil and draws on knowledge of his scholastic behaviour over the whole year. The French *conseil de classe* can do the same thing by drawing on the information provided in the *dossier scolaire*.

In most European countries, as in France and Sweden, this orientation process is already dividing pupils into those who aim for the full academic secondary course, conceived of as leading on to higher education, and those who intend to leave school at sixteen or seventeen, by the beginning of the final year of compulsory schooling. The same differentiation is marked in England and Wales by the decision, usually taken two years in advance, as to which of two nationally validated certificates the pupil should prepare for. Of these the older — the General Certificate of Education (G.C.E.) at Ordinary Level — normally leads on to academic upper secondary education and is almost invariably externally administered, while the newer, the Certificate of Secondary Education (C.S.E.), which is specially intended for the less academically able pupil, does not normally lead on to higher academic study and may be internally administered and assessed, to some extent at least, in the continuous form. It is significant of the general trend referred to above that the decision has already been taken to fuse these two in a single nationally controlled examination, designed to be taken at the age of sixteen plus, i.e. at the end of compulsory education. This new examination is likely to resemble more closely the new C.S.E. than the G.C.E.

Nationally administered external examinations at this stage are now comparatively rare. They suffer from the defect, which has been found in England and Wales with the G.C.E. at Ordinary Level and perhaps to a lesser extent in France with the B.E.P.C., that, although they are designed as terminal examinations for those who are leaving full-time education at this stage, they tend to be taken by the whole age group, including those who are going on to universities. Many educationists believe that an external examination, if well designed as a terminal assessment at this stage, distorts the education of this latter group for whom it has not been intended. It seems probable therefore that the form of such examinations as remain will approximate more and more to a global assessment based on continuous records, covering at least the last two years of compulsory education.

In considering the form of such assessment, the European ministries have been much concerned with the problem of comparability of standards. The dilemma is obvious. True continuous assessment can be made only by a teacher or group of teachers who have been in continuous contact with the pupil throughout the period concerned. This is even more true where the assessment is global, in the sense of taking into consideration personality factors and not simply achievement in the specific " subjects " of the school curriculum. Even " periodic " assessment based on a series of tests carried out

during the year — as in many forms of the German *Abitur* — can only be carried out by groups of teachers from neighbouring schools. Otherwise the mere scale of the operation turns it into a series of external examinations. How, then, is it possible to ensure that there is some comparability between the assessments of different schools or even of different teachers within the same school?

One answer might be that once the assessments have ceased to control selection for — or rather, perhaps, rejection from — the next stage of education, comparability does not matter, or matters very much less. The American employer in California faced with job applications from two youths holding high school diplomas (internally assessed and awarded), one from Maine and one from Illinois, does not bother about comparability. The schools are " accredited " and that is enough for him. It might be thought that in Europe where inspection of the schools, as opposed to assessment of the individual pupil, could be much more tightly controlled, this would provide an adequate degree of comparability at this stage.

To some extent, things seem to be moving in this direction, but some degree of external control of the comparability of standards in assessing the performance of individual pupils still seems desirable to most European authorities even at this stage. One reason for this is that pupils themselves expect it. As Roger Gal pointed out many years ago, a teacher who is an excellent teacher of his subject may have very little understanding of the processes of assessment, even if we leave out of account the well-known fact that individual teachers may be prejudiced for or against certain pupils or classes of pupil. The pupil has a right to some safeguard against wrong assessment and the teacher a right to some protection against the pressures which are put upon him when it is known that assessment is left solely to his discretion. Moreover, once rejection as a result of failure has been eliminated, there is a certain stimulus which the able pupil seeks and gains from matching himself against a demanding external standard.

Another reason is that we have not yet in fact reached in Europe the situation where entry to the most sought-after form of upper secondary education is genuinely open. Thus in England, even in those areas where comprehensive education has been introduced, there are still some " Sixth Form Colleges " which impose a certain number of G.C.E. O-level passes as an entry requirement, and in France those who are not oriented to the *lycée*, but still wish to enter, have the right to prove their ability and gain entrance by taking an examination. Perhaps the clearest indication of the trend comes from Sweden, where entry to the pre-*gymnasium* track in the comprehensive school is open on demand, but the proportion of the age group entering the *gymnasium* has been limited by a parliamentary decision to 30 %. In the three years 1968-69-70, the proportions entering the pre-*gymnasium* track were 45 %, 44 % and 42 %, with the consequence

that, for something between 15 % and 12 % of the age group, low assessments in the comprehensive school have in fact led to rejection from the *gymnasium*. The fact that the figure has been falling, but falling slowly, may indicate a gradual dissolution of the deeply held conviction on the part of parents and pupils that the general academic education, which typified the grammar school, *gymnasium* and *lycée* of the first half of this century, is the key to a middle class occupation.

Finally, there is still some residual expectation on the part of employers that the educational systems will provide them, when accepting young people of sixteen into first employment, with a nationally comparable certificate of achievement. It may be that this expectation will die out as more and more pupils continue education beyond this stage, and as industry itself takes on more of the responsibility of job training; but for the next few years it is likely to be accepted as a reason for continuing attempts to maintain some measure of control over the comparability of school-based assessments at the terminal point of compulsory education.

Comparability is, of course, a special case of the general quality of reliability. The report of the Carnegie Commission in 1932 disclosed serious deficiencies in the reliability of examinations in two senses: candidates were liable to score significantly different grades either if their papers were marked by different examiners or if they were marked by the same examiners at different times. Continuous assessment dramatically increases the problems arising from a large number of different examiners.

Two main methods of improving comparability appear to be evolving. The first is moderation of the teachers' assessments by comparison with the results of nationally validated objective tests; the second is the training of teachers in assessment, and the involvement of groups of teachers rather than individuals in the process.

Moderation by comparison with nationally validated tests has been most fully developed at this stage in Sweden. Standardised objective tests of achievement have been developed by the National Board of Education in the main school subjects. All pupils take these, tests which are described as " monitorial " which means that their results are not intended to affect the assessment of an individual pupil but to guide the teacher in his allocation of grades, internally and continuously assessed within his class. If, for instance, the national tests show that the class is above or below average, even or uneven in the distribution of ability, the teacher is expected to adjust his own distribution of grades to this pattern. These tests are of the multiple-choice type, which has the great advantage that they can be administered relatively cheaply and with complete reliability to the enormously increased number of pupils now remaining in school until at least the age of sixteen. Their known disadvantages, that they test neither the capacity for expressing ordered chains of reasoning

nor creative imagination, are less important where they are used — as in the Swedish system — simply as a control, and a control not of individual performances but of that of the group. It is because of these disadvantages that the final assessment of the teacher may well differ from the average of the grades on the national tests.

This type of control has also been used in England as a check on continuous assessment by teachers in some experiments with the C.S.E. It clearly contributes significantly to improving comparability between schools, but not to eliminating the possibility of prejudice on the part of the teacher or of undue pressure on the teacher by pupils, and it may be significant that some of the complaints voiced against it in Sweden have come from pupils who scored better grades in the national tests than on the teacher's final assessment.

The involvement of groups of teachers in assessment is widely practised in Europe. Examples are the French *conseil de classe*, the local juries in the German *Abitur* and multiple marking in Luxembourg. With increased reliance on continuous assessment this kind of group assessment is becoming more structured and formalised. It has been found, in England, that the formal involvement of groups of teachers from a number of schools in the process is of considerable value, not only in training the teachers in techniques of assessment, but in forcing them to consider the objectives of their courses in more operational terms, and so in improving their teaching. The system clearly contributes to improved reliability, both in comparability between schools and in providing safeguards against prejudice and pressure. Its disadvantage is that it is extremely expensive in its use of teachers' time. One range of decisions which therefore seems to face the European ministries for the future is the best distribution of the available stock of teachers' time between in-service retraining, preparation of lessons, teaching and assessment.

When we move on to the examinations sanctioning the completion of the upper secondary course and giving access to the universities, we are faced with the same problems in a more acute form.

No European country has yet been able to match the expansion of secondary education, and the rising level of expectations which has accompanied it, with an equal expansion of higher education. Consequently some, at least, of those who enter higher secondary education with the hope of proceeding to full-time tertiary education have to be rejected. The fact that entry to full-time tertiary education no longer guarantees employment of the desired type may gradually diminish the competition for entry to universities and other institutions of higher education, but in the short or medium term most European countries seem likely to be faced with more upper secondary school pupils aspiring to enter the tertiary phase than the tertiary phase can accept. The democratisation of education implies that the selection

at this stage ought not to depend, as it did in the first half of the century, largely on wealth, but should be in some way related to the capacity to benefit from further full-time education.

Traditionally, there have been two procedures for adjusting this imbalance. In some countries, for instance England and France, the *baccalauréat* examinations, that is the examinations giving entry to universities have regularly eliminated a certain proportion, usually about two-fifths, of the candidates. In others, such as the Federal Republic of Germany and Sweden, the process of elimination has been a gradual one, in which the pupil is not allowed to proceed to the terminal class of secondary education until he has satisfied the teachers in his own school that he is " ready " to take the final examinations; but when he does take them he is very much more likely to pass. In yet other countries both systems have operated.

The process of repeating classes until almost all pupils who reach the terminal class pass the examinations is, of course, a way of combining continuous internal assessment with a terminal examination, but it involves an unwelcome sense of failure and a tedious repetition of educational experience which is increasingly condemned in those countries where it operates. It is true, however, that a result of this process is to eliminate the less able, less determined or possibly less affluent pupils as they progress up the secondary school, and thus to restore the balance between qualified aspirants and available places to much the same extent as does the fairly high failure rate in the crucial *baccalauréat* examinations elsewhere. It also has the effect, however, of pushing up the average age of transition from upper secondary to higher education in the countries where it prevails, to something approaching twenty-one.

It is not surprising, therefore, that many European countries are seeking to find some less wasteful combination of continuous assessment and external examination. This is the balanced system which attempts to combine the improved validity, which continuous or periodic assessment can give over an external examination taken on a single occasion, with the degree of reliability which is still required from an examination which is used for selection to a privileged minority.

The most radical attempt to do this is the system described above in relation to assessment at the end of the comprehensive school course in Sweden. Such a system does introduce an element of externally controlled reliability into a continuous and internal assessment, and also ensures that the spread of grades is more comparable as between different subjects. That it has not eliminated the evil effects of fierce competitive pressures, which were attributed to the *studentexamen*, is not the fault of the system. As long as there are more candidates for the most favoured faculty in the most favoured

university, these pressures are bound to persist. Increasingly wide opportunities to enter some sort of university institution may mitigate the ferocity of the struggle, but they will never prevent the ambitious from struggling for places in what they believe to be the best institution.

Another approach to the problem of combining reliability and validity is the introduction, into the battery of information on which selection for entry to higher education depends, of scholastic aptitude tests. These have long been used in the USA and experiments are in progress with their use in the United Kingdom and the Federal Republic of Germany. These tests of the objective type are designed not to validate completion of a secondary course, but to identify aptitude for higher studies. If it should prove that their predictive validity is at least as good as that of terminal examinations, then there would be a strong case for using them as a check on the reliability of these examinations. To the extent that their use made it possible to increase the reliability of assessment, it should be possible to relax the emphasis on reliability in other directions and so make more use of global or continuous assessment.

Another development which might be said to have a similar intention is the introduction of objective multiple-choice sections into traditional terminal examinations. The multiple-choice test can eliminate entirely unreliability arising from the subjective assessments of different examiners, and, although occasional items may be ill-designed or ambiguous, there are usually enough good ones to ensure that little harm is done. The sophistication of test constructors is now such that they can be used to test far more than mere factual recall of information, and they can sample more widely than questions of the traditional type the range of skills and information required in a syllabus. Consequently, although it is recognised that they neither encourage nor measure creativity nor the capacity for expressing in continuous prose sustained passages of logical reasoning, they are beginning to be included as one element in terminal examinations in many European countries.

The main objection to a much more extended use of objective tests — that is, the effect which they have on teaching methods — is a reason why a number of countries are seeking for some method of retaining the oral examination, in a situation where the vastly increased numbers presenting themselves for examination make the retention of the traditional face-to-face encounter between pupil and examiner almost impossible either to organise or to assess with any degree of comparability. It is possible here that the development of cheap, compatible and reliable video-tape equipment may provide an answer.

The general trend in Europe seems, then, to be to extend the concept of orientation, based on a more global and continuous assessment, to higher age ranges of pupils.

This orientation procedure is consequently becoming concerned not merely with the allocation of pupils to different tracks or stages within the educational process, but to counselling and guidance on the choice of employment. Consequently we see, in France, the creation of the *Office national d'information sur les enseignements et les professions* (O.N.I.S.E.P.), with its interesting booklet on orientation *after* the *baccalauréat*; the proclaimed objective of " continuous orientation " in Switzerland; the researches in Sweden into the relationship between the real needs both of universities and of industrial employers, and the preparation given to pupils in the schools; and the development in many countries, slow though it may be, of careers guidance services at the end of the upper secondary stage of education. In all of these developments, it is possible to distinguish a common attempt to stress the value of technicological and vocational courses and to counteract the tendency towards over-enrolment in the traditional academic programmes, the prestige of which is based on the fact that they were once the only channels of promotion to higher economic and social status.

SECTION 8

THE TRAINING OF TEACHERS

Developments in the education and training of teachers in Europe have been functionally related to developments in the educational system as a whole in two ways, and this trend is likely to continue. In the first place, it is becoming more and more clearly recognised that, as school systems and objectives change, so the professional preparation of those who are going to teach in them must change in harmony.

If reforms in teacher training lag behind reforms in school education, then the reforms in school education are likely to be implemented on paper only, and what actually happens in schools to remain very little changed. This problem is, of course, greatly accentuated by the fact that between two-thirds and three-quarters of the teaching profession in any country are likely to be over the age of thirty and unaffected by reforms in the initial training of teachers. The " generation gap " between young and old teachers is a common feature of the educational scene throughout Europe, and it is the realisation of this special problem in an age of rapid technological and educational change which has led to that growing interest in the " in-service " education of teachers, as a special feature of life-long education *(éducation permanente)*, which is referred to later in this section. For initial training, the UNESCO meeting of experts in 1969 pointed out that, in such circumstances, to learn how to teach by apprenticeship to an older teacher might no longer be an appropriate process.

Secondly, the expansion of educational opportunity itself is affecting the special position of the teacher in society and the special arrangements made for his education and training. As long as a certain stage of education, whether it be complete secondary or tertiary, is open only to a limited number of those capable of profiting from it, special arrangements have to be made to offer admission to this stage on particularly favourable terms to those prepared to commit themselves to a career in teaching, and to combine, for them, this stage of general education with professional training. The normal schools which, in so many European countries, have combined a complete secondary education with professional training for primary school teachers, are an example of this pattern ; so, in the tertiary stage, are the colleges of education in England and Wales. This opportunity for prospective teachers to secure a more extended education than would otherwise

have been open to them has contributed to the role of the teaching profession as a factor in upward social mobility, and therefore to the teachers' concept of their social status. The democratisation of complete secondary education and the very rapid expansion of opportunity in higher education is bringing this system to an end, and is probably responsible for the main trends of change in the structure of teacher education and training.

Trends of change in the content and method are more closely related than are those in structure to the changing role of the teacher in the schools, and to changes in the school curricula.

From the point of view of structure, the most notable tendencies in the training of teachers are assimilation and extension. By assimilation, we mean the unification of what were once separate training systems for teachers of the different stages of school education — nursery, primary and secondary — and their gradual absorption within the pattern of higher education as a whole. By extension, we mean the provision of post-experience training for teachers as part of life-long education. The assimilation of teacher training reflects also the growing recognition of the extreme importance of the earliest stages in a child's education and the movement towards "comprehensive" secondary education. It could only have been realised in a climate of educational expansion based on increased economic resources. The underlying educational arguments for this trend appear to be now universally accepted: the speed at which this acceptance will be universally implemented will probably depend upon the resources available — and perhaps to some extent on the opposition of the upper secondary school teachers who, in some countries, feel their special status threatened.

When the Council of Europe published in 1965 Joseph Majault's survey of teacher training, the preparation of primary school teachers was still generally separated from that of secondary school teachers and in some countries, e.g. the Netherlands and Italy, the preparation of nursery school teachers from that of primary school teachers. Moreover, there persisted in many countries (e.g. Austria, Belgium, France, Iceland, the Netherlands and Sweden) two alternative patterns of preparation for primary school teaching. In the first of these, with a long history behind it, the student entered the normal school at the completion of elementary (or short secondary) education, and combined further general education to the completion level of the upper secondary school with pedagogical training; in the second, upper secondary education was completed first, either in school or continuation classes, and the student then entered a shorter period of pedagogical training. The first of these patterns had already been abandoned in favour of the second in many countries (e.g. Denmark, Federal Republic of Germany, Ireland, United Kingdom), and the tendency to move in this direction was clear in others. In England and

Wales, the professional training of primary and secondary teachers was already firmly allocated to the tertiary sector and carried out in the same institution, the three-year college of education linked through the " institutes " with the universities, but it must be remembered that this was associated with a selective secondary school system, so that in practice the college of education prepared teachers for the primary schools and for the " short " secondary education of the " modern schools ", while the universities prepared teachers for the " long " secondary education of the grammar schools.

Alongside these two patterns for the preparation of primary or, in the English case, primary and lower secondary school teachers, went a different pattern of preparation for the teacher in the selective or upper secondary school. For him, complete secondary education was followed by a university course leading to a first degree in arts or sciences and a varying amount, sometimes very small, of professional training. In England and Wales, no professional training at all was required, although a growing majority of career teachers chose to follow their first degree with a one year professional course at a university department of education. In France, the professional training of the *agrégé* was minimal.

The tendencies, already noticed, to assimilate nursery and primary education and to introduce a comprehensive secondary school — at least in the lower secondary or middle range — have reinforced the view that these divisions in the education and training of teachers are no longer appropriate. The democratisation of secondary education has removed the main *raison d'être* of the secondary/normal school and it is increasingly recognised that all future teachers should complete a full general secondary education before embarking on their professional preparation.

In one sense, it could be said that what is now happening is that the system of combining the opportunity of general education with professional training for the primary school teacher is being transferred from the secondary to the tertiary stage: but, even at this tertiary stage, the assimilation of the primary and the secondary school teacher's preparation is now proceeding very rapidly. Already by the end of the nineteen-sixties, opportunities existed in a number of countries (e.g. Belgium and Norway) for able students preparing the primary school teachers' course to transfer to university degree courses. Between 1968 and 1970, the English and Welsh universities introduced the Bachelor of Education degree which is now taken, after one further year's study, by approximately 10 % of students from the colleges of education, while in Scotland all male primary school teachers must be university graduates before entering on teacher training. In France, the period of professional preparation following the *baccalauréat* has been extended to three years, and the universities are, as in other European countries, playing an increasing role at this stage in the training of primary school teachers.

At the same time, the introduction of the comprehensive secondary school is resulting in the introduction of more realistic pedagogical training for university graduates entering secondary school teaching. In England and Wales, the year of professional preparation has at last become compulsory, and the need to expand the provision very rapidly has meant that this is now increasingly provided in the colleges of education rather than the university departments, thus bringing the two systems closer together. In France, the aim is to establish a common system of preparation for secondary school teachers of all types, consisting of four years' university education followed by one year of professional training.

One result of this closer assimilation of the education and training of teachers for different stages in the educational process is a growing tension between the believers in " concurrent " and " consecutive " professional training. As long as entry first to complete secondary and then to tertiary education was made available on specially easy terms to prospective primary teachers, it was the normal practice to combine this with their professional training in a concurrent course. With the opening of more adequate educational opportunities at both levels, the question is being increasingly asked whether all teachers should not, as secondary teachers have in the past, complete their general higher education before starting their professional preparation. In the United Kingdom for instance, the James Report (1972) recommends the establishment of a sub-degree level two-year Diploma in Higher Education to be taken by student teachers, whether primary or secondary, in universities or university-associated colleges as a preliminary to professional training. One argument frequently used in support of such a pattern is that entry to the teaching profession should no longer expect commitment at an earlier age than entry to other professions. Against this, the supporters of the traditional concurrent method of educating and training teachers point to the advantages derived from associating closely academic and work experience, and the study of a " discipline " with the study of how it should be taught. Moreover, national governments are likely to be wary of too complete an integration of teacher training in the university sector on a " consecutive " pattern because of their need to ensure an adequate supply of teachers for the schools. It may be that most European countries are passing out of the period of acute general shortage of teachers (though this is, in any case, a purely relative term), but there are certainly acute specific shortages (e.g. of teachers of science and mathematics in the Federal Republic of Germany and the United Kingdom) which pose serious threats to the whole system.

Finally, many countries are realising that the rapidly changing situation in the schools requires not only new developments in the structure of initial teacher training but also a greatly increased provision of in-service training.

The survey made by Professor Gozzer, Director of the European Centre for Education in Frascati, and published in 1971, drew attention to the weaknesses in the provision of in-service training which are common to Europe. All teachers need such retraining but in general, except in France and Turkey, enrolment in in-service courses has been optional — at the initiative of the teacher — and has been for short courses, usually in pedagogics for primary teachers and in specialist subjects for secondary teachers. Longer courses have bee n available — notably in Finland, Denmark, France and the United Kingdom — and it may be significant that England and Wales are now moving towards a policy of giving every teacher the right to take one term's retraining every seven years, and France the obligation to take one year's retraining during his career. Media other than courses appear to have been inadequately developed, apart perhaps from correspondence courses in the Federal Republic of Germany and the combination of correspondence, radio and television by the Open University in the United Kingdom. It seems probable that the need to bring the skills and the knowledge of the teachers continually up to date, and to render teaching a more attractive profession by providing periods of refreshment, will lead to a great expansion of " long-distance " retraining, of refresher courses and of local teachers' centres such as are being widely established in England and Wales. In this development, it would be in accordance with the general trend towards " participation " to expect a more effective role to be given to the teachers' organisations.

Changes in content

The enrichment of the primary school curriculum which we have already noticed and even more the introduction of the comprehensive middle school or lower secondary school mean that the role of the teacher is changing and that his preparation must also change.

It is being realised that if one of the main functions of the middle school or lower secondary school is to become the orientation and guidance of pupils, then teachers must be better trained in orientation and guidance. As Roger Gal said many years ago, every teacher must become to some extent an educational psychologist. If, on the other hand, the primary and lower secondary curriculum is to be enriched with new subject matter, if music, art, mathematics and foreign languages are to be given a greater place, then it may be necessary to reduce the amount of time that the pupils spend with the general class teacher and to employ more specialists. It has been observed in Sweden, where the comprehensive school has been longest established, that this produces a conflict and that it is essential that *all* teachers, specialist and general, be concerned with the education of the whole child. From this, it follows that all teachers must be prepared to play their part in the guidance of the pupils. Preparation not only for

" team-teaching ", therefore, but for participation in the *conseil de classe* is becoming an important factor in teacher preparation.

Again, if external examinations are to give way more and more to continuous internal assessment, as was suggested in Section 7, it is becoming recognised that teachers must be given more training in the techniques of assessment. In England and Wales, this is likely to be one of the major elements of in-service courses over the next few years.

At the secondary level, many countries (notably France and Italy) have recognised the new problems which teachers will have to deal with as a result of the alienation of many adolescents from the traditional curriculum and ethos of the school. Greater participation of pupils as well as of their parents in the affairs of the school is seen as one answer to these problems, and consequently new patterns of teacher training aim to prepare the student-teacher to play his part in such joint consultation. The aim is not only to produce a teacher who will be less of a " master " and more of a facilitator, but one who will be able to take a lead in integrating the school more closely with the community.

The result of such integration and of increased pupil participation is likely to be the introduction of curricular material which is less confined to the exposition of the " subjects " or " discipline ", of the traditional school programme and more directly concerned with the promotion of learning in fields relating to the immediate needs and interests of the pupils. Thus preparation for sex-education has been introduced in the training programme of the Federal Republic of Germany, and in the United Kingdom much attention is being paid to preparation for the teaching of " interdisciplinary " or " integrated " courses with a strong social relevance. Moral and civic education is another field where curriculum development in the schools is being reflected in the preparation of teachers.

Another area where changes in the learning process in schools is demanding changes in the preparation of teachers is that of educational technology as described in Section 6. The film and film-strip were long established as valuable teaching aids before the majority of teachers were trained to use them. Now, the richness of electronic devices available — the tape-recorder, the " language laboratory ", the video-tape projector, even closed-circuit television, and " teaching machines " — makes it essential that the teacher, both in his initial training and in in-service courses, should be given a thorough acquaintance with educational technology. This is particularly important since much of this equipment is extremely expensive and may remain under-used or even scarcely used at all if the teachers are not thoroughly at home in its use.

Authorities in a number of countries have been disappointed in the high hopes which were at one time entertained about the return which could be expected from an investment in educational technology and are concerned to ensure that, in future, teachers should be trained to use the new devices and to have a more realistic understanding of what they can and cannot contribute to teaching. This involves not merely the content but also the teaching methods of teacher-training establishments, since, as the UNESCO seminar of 1969 pointed out, the teaching methods in such institutions have a dual function — to teach, and to act as models of teaching.

Finally, those responsible for the preparation of teachers are becoming increasingly concerned that this should aid the teacher to reflect upon the aims and methods of his own teaching and on his role in the school and society. We have already mentioned the concern of Swedish teachers that, through the introduction of more and more specialist teaching, they are being cut off from direct and continuing personal contact with their pupils. Investigations in France and in the USA have disclosed an alarmingly high level of neurotic disorder among members of the teaching profession and suggested that this may be due, at least in part, to the isolation of the teacher as the only adult in what is essentially a world of children, and to uncertainty about his new role in a society which no longer recognises him as a person holding a special kind of authority. Teacher education programmes are therefore increasingly designed to help the student-teacher to recognise his own motives as a teacher, and to relate more effectively both to his pupils, his colleagues and the wider society.

SECTION 9

SCHOOL AND COMMUNITY

The notion that children and young people require some sheltering from their environment is a sound one, and home and school should in part fulfil this purpose. Nevertheless, perhaps in the past the school has been over-protective, isolating its pupils too much from the world. The English grammar school of medieval origin, with its monastic atmosphere of cloistered learning, the French *lycée* of Napoleon, with its military overtones and somewhat Spartan conditions, represent institutional types of such protectiveness. Today, however, all is changed: not only has the community overflowed into the school, but the school has gone out to meet it. Education is recognised to be the concern not only of pupils, teachers and parents or of often "faceless and distant" administrators, but also of a host of other organisations — local bodies, trade unions, employers' organisations, sports and cultural associations, religious entities and other groupings of all kinds. In short, because the school is the school of all the citizens, it must welcome the city inside its gates.

The tumultuous events of the late 1960s, which spread from higher education to the secondary schools, were merely the catalyst that signified belated recognition of this fact. Ever since 1945 — and in some countries even earlier — the school had endeavoured to interest others in its wellbeing. The parent-teacher associations in the United Kingdom which acted — and still largely continue to do so — mainly as benefactors of the school, pre-date the last war; they raise money in a variety of ways to provide additional amenities such as swimming pools and establish eleemosynary funds for a diversity of school purposes. Moreover, schools respond positively to such external generosity. As in other countries, British schools today involve their older pupils in a wide range of activities to help the community, from aiding the old and sick to performing useful tasks for the poor, the homeless and the disabled. The reciprocal educative effect of such actions, both upon the community and the pupils themselves, should not be underestimated.

Thus the desire has been for greater involvement. It is not surprising that this wish should have been expressed firstly by the pupils themselves, in relation to the governance of the schools they attend, because this microcosm of the larger community is the one they know best. The degree to which each country has acceded to this demand has

differed. In some of the Swiss cantons, in France and in Italy, pupils have a direct say in the discipline and management of their schools, even in some cases drafting the rules. In the Federal Republic of Germany (North Rhine-Westphalia), senior pupils even have a voice in the drawing up of the timetable and have an opportunity to express an opinion regarding the suitability of new teaching methods and resources for learning. Moreover, in most German secondary schools, there is a system of election of class representatives to a school council, to which staff members may also be co-opted. This council decides on pupil participation in extracurricular activities, represents the pupils' interests generally (even in some cases attending staff meetings) and discusses questions of order and school organisation. A school representative (known as the *Schulsprecher* as distinct from the more numerous *Klassensprecher)* may even be called upon to represent the school in local " Parliaments " of schools under the system of " pupil co-administration " *(Schulermitverwaltung)*. In Italy, it has also been proposed that pupils should have a share in drawing up the " plan of studies ". In Sweden, pupils in the unitary school are involved in its general planning. In many countries, the pupils have assumed control of the running of clubs and voluntary organisations within the school, subject only to minimal oversight by members of the staff. This is a wide range of powers to entrust to young men and women, but one which appears to be well-justified: the ability of the young to organise themselves and to become responsible for their own destiny has always been underestimated. As the German *Strukturplan* of 1970 neatly expressed it, " the pupil-teacher relationship ought not to be a confrontation but a co-operation ".

Indeed, it is felt that, if pupils take a larger part in running their own affairs and in acting in a democratic and responsible fashion, this will prove a good training in civics and for taking part in the government of their country, either as elector or elected, when they leave school. There is thus a positive educational gain. As an Italian official circular states:

" (The ministry recognises) the usefulness of all initiatives, among them pupils' assemblies, which are intended to make the dialogue with pupils more open and which have as their aim to stimulate young people's contribution to the renewal of the structures and aspects of society and the school at a time when the face of the school is being changed. " But there are other good grounds for this participatory role. The first is undoubtedly the greater maturity of pupils, who see participation as a right. Second, on the whole the larger size of schools tends to make them anonymous entities; the greater interest in them taken by their pupils will tend to render them less impersonal. Lastly, the need for extra-curricular activities involving as many pupils as possible, whether, for example, as developed in the well-tried British tradition or in the more formal institution in France of *la coopération scolaire*, is even greater when the " parallel school "

outside the school tends to be partly diseducational as well as partly educational. It has often been remarked that university students learn more from each other than from their professors: something similar may be true of school pupils, particularly in matters that involve co-operation and the sacrifice of individual interests to those of the group.

How far this devolution of responsibility may be taken must clearly depend upon the age of the pupils. In Britain, the well-established prefect system, where older boys and girls, usually chosen by the staff but sometimes elected by their fellows, have for long exercised considerable responsibility and have even wielded disciplinary powers over the younger pupils, has on the whole served well in the past as an instrument for the development of character and personality. The fact that it is now being replaced in many schools, particularly the comprehensive ones, by democratically elected schools councils, is merely an expression of the desire to involve greater numbers of pupils than hitherto in the day-to-day running of the school. Certainly, in many countries it is felt that the older pupils should have a greater authority in school affairs than the younger ones. In Bavaria, for example, it is reported that the pupils in the two top grades of some *Gymnasien* have even the right to elect which teacher they wish to be their tutor. (They also enjoy certain other privileges, such as the right to absent themselves from school for three days without permission.)

From pupils to parents. One might almost write: from enthusiasm to lack of interest. More often than not, the task is to stir parents from their apathy. Yet the wide implications of education for their children should surely be brought home to them. In Austria, a report from the province of Burgenland made to the ministry in Vienna stated that " many parents leave the choice of educational career (of their children) to chance ". This is not untypical elsewhere. In fact (the report goes on), the form of schooling finally decided upon by the parents for their child depends upon the education that they themselves enjoyed, the father's occupation, the characteristics of the family home, the place of residence and the socio-economic category to which the family belongs. These are often irrelevant factors which, ideally, should have little to do with the educational and vocational prospects of the child. In the United Kingdom, one report states that a common complaint is that some " parents never come near the school ". One device adopted in some comprehensive schools to force them to take an interest is to refuse to issue written reports on pupils. Thus, if the parent wishes to know how his child is progressing, he is obliged to attend one of the " open evenings " that the school arranges. In France and Luxembourg, parents are drawn into the discussions which take place in the " class councils " where teachers and others decide upon the future educational course that pupils should follow. Where parent-school relationships can be

formalised, organisations have sprung up. In Britain, the P.T.A.s (parent-teacher associations) have already been mentioned, and these usually function mainly at a local " grass-roots " level. In France, by contrast, quite powerful parents' organisations have arisen which can act nationally as pressure groups in the interests of pupils. But the defect of all such organisations, whether local or national, is surely the " permanent impermanence " of the rank-and-file parents, whose interest in a particular institution is naturally limited to the years of schooling of their own child. This poses problems for the other less ephemeral participants in education — the teachers and administrators — who often find themselves pleading the same educational causes at sporadic intervals, with the battle over some vital pedagogical principle never being definitively won. A further difficulty is that those parents who are committed to such organisations are often those whose children present no problems ; it is a commitment where too often the degree of parental interest is correlated with social class.

How the relationship of the school with the outside world should be formalised varies greatly from one country to another. In the United Kingdom, the system of boards of governors, on which are represented a wide range of local interests (and, in one or two cases, the pupils) has functioned as an agency of checks and balances between the individual school and the local education authority. In countries where the school administration is more centralised, the principle of participation has been translated into practice by means of organisations more structured in character. From 1973, Finland is introducing school councils into its secondary schools composed of equal numbers of teachers, pupils and members elected by the municipal council, together with the school principal, who is a member *ex officio* but has no voting rights. These new bodies will have a range of powers which include discipline, in which they will act as an appeal court from the decisions of the school principal. In Sweden, the internal consultative organisations of pupils and teaching staff have the planning function already mentioned (incidentally, some interesting research on the changes wrought by these on pupils' attitudes is being carried on in Malmö). But there are also what are described as " pupil welfare conferences ". On these the pupils are not usually directly represented, but the members consist of parents and experts connected with school welfare. These meet at least once a month ; in fact, so much importance is attached to them that it is recommended that they meet once a week. In Denmark, permanent co-operation committees exist for each secondary school, comprised of the school principal, the chairman and two members of the local school board or teachers' council. These bodies act as the final arbiters of discipline within the schools.

In France, a number of school bodies exist on which a diversity of interests are represented. In primary education, the school council

naturally contains no direct representatives of the pupils, but merely consists of parents, teachers and elected representatives from the municipalities. In secondary schools, the bodies are more numerous: the class council *(conseil de classe)*, the administrative council, a standing committee and the disciplinary council. The class council, which is concerned with the *orientation* (or educational guidance) of pupils within a particular class, comprises: teachers who give instruction to the class in question, representatives of the parents and the pupils, the school guidance counsellor, the medical officer, the social worker or the school nurse. But the key body is undoubtedly the " administrative council ", which merits closer examination. It has a quadripartite membership: a sixth are representatives of the school administration: two sixths are elected members of the school staff (of which two thirds must be from the teaching staff); one sixth consists of local people such as the mayor; and two sixths consist of pupils and parents. (In technical schools arrangements are also made for trade unions and employers' associations to be represented). The council lays down the school rules *(le règlement intérieur)*, suggest improvements in the functioning of the various school services, decides on the use to which financial credits allocated for local use should be put, and has the right to express an opinion on all matters affecting the school. It appoints a standing committee to deal with urgent matters that may arise and to ensure that its own decisions are implemented: on this particular committee, two out of the fourteen members must be chosen from among parents and pupils. The disciplinary council consists of the standing committee sitting in that capacity, together with advisory members comprising the social worker, the guidance counsellor, two teachers from the class of the pupil under discussion and two pupil delegates, also from his class. The election procedures to these various bodies are formalised on a system of proportional representation and the " largest remainder " *(le plus fort reste)*. However, as in other countries, parents tend to be apathetic: in 1969, it was estimated that, depending upon the various *académies* between only 29 % and 50 % voted in the elections to these bodies.

Whilst it is certain that the " formulae " for participation in the running of schools by community interests will continue to evolve, it is true to say that some modicum of success has been registered since 1969. One interesting international development has been the creation of a mixed German-Swedish commission of educational experts drawn from the two countries to examine, *inter alia*, the whole question of participation. Certainly one fear that some authorities had in mind when recent arrangements were set up has not materialised: outside representation — or even representation from within the school — it was surmised, might lead to an undue politicisation of local educational matters. In fact, many governments stipulate that neither pupils' not parents' associations are permitted to place undue

emphasis on any particular political, religious or philosophical belief. On the other hand, the schools have been opened up to rational political discussion as never before. In Britain, such discussion by pupils has never been banned. Indeed, on the occasion of national elections, mock elections, with the same political parties as already exist (and others, sometimes more colourfully named and with more extravagant policies!), are held, with effects that appear to have been nothing but beneficial. Whilst indoctrination of whatever kind must be anathema in a democratic system, the process of learning how to conduct a reasonable discussion of political issues is surely part of an education for democracy.

The new, outward-looking perspective of the school has had direct consequences on school buildings. According to one French industrialist, who pioneered the imposing " Educational and Cultural Centre " at Yerres, it is the British who have for many years broken new ground with the concept of the " community school ". One might cite the example of the Cambridgeshire " village colleges " or the new comprehensive schools in the United Kingdom. In the latter, the " neighbourhood school " is not only used for extra-curricular activities of many kinds, for extra classes after school for those pupils requiring additional help, or for " homework " that is done in the school building. It is often purpose-built also to act as an evening institute for adults; its sports and cultural facilities are used by the community; during the school holidays, it is used as a " play centre "; and its library often serves as the local branch of the public library as well. Because a large comprehensive school in Britain can cost up to one million pounds, it is obviously right that there should be maximum use of its facilities. One new comprehensive school, although proud of its role as the centre of life in the neighbourhood, was even heard to complain that its building was " so heavily over-used that it is impossible to keep clean ". A similar concept inspired the French centre at Yerres in the Paris region, which has just been mentioned. The centre has at least seven different components — a college of secondary education is merely one; others are: a sports centre, a youth centre *(Maison des jeunes)*, an auditorium for plays, films, exhibitions and public meetings, a social service centre, a public library and a crèche. In Finland also, proposals are under discussion for the construction of multipurpose buildings. In Sweden, such schools already exist as — in the form of " agora " — they do also in Dutch towns. There is no doubt also that the industrialisation of school buildings, with its consequent cost reduction, has facilitated such co-operation between the local community and the educational authorities. One secular writer has even gone so far as to say that the school of the future is destined to fulfil the role previously exercised by the church.

In another way also, the school has adjusted itself, or is in the process of doing so, to the life of the community. In those countries

where traditionally mornings only were devoted to schooling, but with a six-day week, the switch is being made to the all-day school, with a free weekend. This has stirred up some opposition. In Bavaria, the teachers' association has even termed it a " monumental error ", but in a large city such as Munich both parents and pupils have been almost unanimous in support of this step. The wisdom of the two-day holiday at the weekend has also been questioned — in France, for example, by some doctors who argue that the regime of one free day in mid-week is medically more appropriate for the child. However, as in employment the five-day week is now almost universal, this seems to be fighting to hold back the tide : parents are naturally anxious to have their children at home when they can devote more time to them, and when they can enjoy their leisure as a family. If, as is predicted, the working week is eventually reduced to four days, the situation may change yet again.

The so-called " parallel school " of the mass media was already mentioned in Section 5. Its existence (recent, for the term as now conveniently used dates only from 1966) is at once a threat and a stimulation to the school which seeks to identify itself with the community. The mass media at their best may often complement the educative influence exerted by the school. but they also often compete with it — not always to the school's advantage. The moral and cultural values which the school sets out to uphold and propagate sometimes conflict with those proffered by the mass media. The radio, the large and small screen and the press are sometimes guilty of distorting facts. One thinks, for example, of the lack of historicity of certain allegedly " historical " films. The passivity that the mass media tend to foster, and the deliberate appeal to the affective rather than the cognitive, are additional dangers. Yet somehow the school has to come to terms with its rival, for the mass media have broad educational possibilities and their influence is by no means wholly detrimental. The stimulation of the imagination through the pictorial, the encouragement of oratory through the spoken word, are two advantages immediately discernible. What the school has surely to do is to arrogate to itself what is best in the mass media and the techniques they employ, and use them for its own purposes, at the same time encouraging its pupils to develop a critical attitude towards them. If the school is to be truly open to the world, it must do as once it did in teaching the classics : take the good elements and neglect the bad. Only thus will what the pupil learns in school be naturally linked to the no less potent learning he acquires in the wider context of the environment outside the school.

Finally, what of the influence that the educative community can exert on educational change? Whilst this must be given due weight, it must not be overestimated, for schools are the servants rather than the pacemakers of society. Although the viewpoint of the professional, whether teacher or administrator, must always be listened to with

respect, it is ultimately society that determines the character of our schools. A school that is responsive to the needs of the community, that opens itself up to that community, stands more chance of acting in accordance with its wishes — and, paradoxically, in the open society, of exerting greater educational influence upon that society as a whole.

SECTION 10

THE INTERNATIONAL PERSPECTIVE

With the expansion of the European Economic Community, the proliferation of multinational corporations and international agencies, the increasingly free movement of labour, and the emergence of problems in the environment which can be treated only on a global scale, it is not surprising that those responsible for national school systems in Europe are beginning to recognise more fully that education has a responsibility to the wider world community.

Although it might be argued that nothing very dramatic has yet been done, there has already been considerable development in a number of fields. Within Europe, these may be defined as the development of international or bi-national schools, the development of links between schools, and of exchanges between teachers and pupils. But Europe is also increasingly conscious of its educational responsibilities outside Europe. These are met through the " overseas " schools maintained by many European countries, by the supply of teachers by European countries to many countries in the Third World, and by the educational element in many aid programmes.

The most concrete achievement of European governments in the development of international schools has been the establishment of the six European schools directly financed and administered by the Community and providing for the children of European functionaries a common curriculum leading to a common European *baccalauréat*. Their emphasis on bilingualism, and on the combination of respect for national language and culture with the promotion of understanding of the wider community, surely represents a trend which will continue to develop over the next decade, even if the widening of their original horizons may bring with it certain modifications in their administrative structure and control.

Apart from these, however, there have been few initiatives by the governments to provide international schools to meet the needs of the international community. France has established two international *lycées* and British, Danish, German, Swedish and cantonal Swiss authorities have given some form of aid to independent international schools, but the attitude of governments on the whole has been that the international community of functionaries, other than those employed by the Community, should either make use of the school system

provided by the state in which they are living or of private fee-paying international schools. The needs of foreign workers who clearly could not adopt the latter procedure are met in many countries by the establishment of special classes or even special bilingual schools within the State system. In certain frontier areas in many countries, for instance Austria, Belgium, France and Sweden, official bilingual schools have been established to promote closer relations with the neighbouring country or to meet the needs of linguistic minorities within the country.

The very rapid increase of private international schools, and of private national schools abroad (such as the new English school in Brussels), indicates how great is the demand for this kind of education from parents whose work now involves long periods of residence in a foreign country. Leach, writing in 1969, records by name 151 schools with some formal " international association ", and a total of 30 300 pupils attending United States schools, often called " international ", in Europe, of whom only 9 500 were children of United States citizens. There is plenty of evidence that these numbers are continually increasing, and it may be that, over the next decade, governments will be considering whether this educational need would best be met by the public provision of international schools in the major centres of commerce and administration. After all, the European schools were originally a private venture before the Community took over responsibility for them.

The major weaknesses in the private international schools are financial instability and excessively rapid turnover of staff, occasioned by the fact that, although many teachers welcome the opportunity to serve in an international school for a short time, few are prepared to risk a permanent career outside their national system.

Two private initiatives in the field of international schools have already begun to attract governmental support and are, in fact, closely linked together. The International Baccalaureate Office (I.B.O.), although established in Geneva as a private foundation registered in Switzerland, has a governing council which includes distinguished educators from many European countries and has received governmental grants from the Federal Republic of Germany, the Netherlands and the United Kingdom. By providing a terminal secondary programme and examinations, which have now been adopted by the major international schools and provisionally recognised for the purposes of university entrance in most European countries, the I.B.O. has taken a first step towards the harmonisation of programmes and diplomas at this level and therefore the promotion of student mobility, the recognition of the needs of the mobile community, and the provision of a more internationally oriented curriculum. An investigation has now been launched, with the support of UNESCO, to consider the feasibility of transferring this private initiative to UNESCO control, as the European schools were transferred to Community control.

One of the first international schools to adopt the International *Baccalauréat* as its terminal programme was the United World College of the Atlantic, the first in a chain of United World Colleges which has already established further colleges in Singapore and Western Canada and which aims to found colleges in the Federal Republic of Germany and Italy in the near future. These colleges, with an age range from sixteen to nineteen, differ from the great majority of international schools in that they are boarding schools, founded not in response to the needs of the mobile international community but to the ideal of promoting international understanding. Their significance in assessing the trends of European thought in this context is that, unlike the private international schools already mentioned, they have succeeded in securing grants-in-aid from European governments and, perhaps more importantly, the secondment of teachers. Their link with the International *Baccalauréat* project is the fact that the whole chain — whether for pedogogical reasons or because they value the possibilities for mobility which it presents — has adopted in principle, and subject of course to the outcome of the negotiations with UNESCO, the International *Baccalauréat* programmes as their common curriculum.

The alternative method of providing for the educational needs of the children of the mobile international community is, of course, to enrol them in the publicly maintained schools of the State in which they are working. In many ways, this must seem the more attractive solution and, as we have already noticed, it is at present favoured by the majority of countries. It did not prove satisfactory, however, to the functionaries of the European Economic Community, and the proliferation of private international schools seems to indicate that it is not, in its present form, satisfactory to the international community. One problem is clearly language. Where, within a national system, instruction is given in one of the major international languages, parents of many nationalities may see an advantage for their children in learning that language and may be happy to use the national schools, just as parents in many " foreign " capitals send their children to the French *lycée* or the American community school. Where the national language is rarely spoken outside the country, however, in Denmark for instance, or the Flemish areas of Belgium, parents are reluctant to use the national schools since this involves the children in learning a new language which they are unlikely to use later in life.

Another problem is that national systems of education are often still too ethnocentric to attract the international community; in particular, their upper secondary courses tend to be very closely related to the passing of the national *baccalauréat* examination, which may be irrelevant to the needs of foreign students. A possible solution to the second of these problems lies in the adoption of the International *Baccalauréat* courses as an " option " offered to foreign students within a nationally maintained school, and experiments with this

pattern are in operation in Denmark, France, the Federal Republic of Germany and the United Kingdom ; but the difficulty for the younger age groups could only be surmounted by the adoption of a more " European " and less " nationalist " outlook on education throughout national school systems. Consideration of this possibility takes us beyond international schools or international sections in national schools. It is the role of national school systems as a whole in a world of growing international co-operation that we must consider.

In this respect also, although there now seems to be a clearly accepted commitment on the part of national school systems to increased education for international understanding, the practical initiatives have mainly been taken over the last decade either by international agencies, such as UNESCO and the Council of Europe, or by private associations such as the European Association of Teachers.

Two areas in which a considerable amount of work has been done are : the removal of chauvinism from text books ; and the promotion of links and exchanges between schools and school children.

It is widely recognised, in the words of our contribution from Finland, that " when the child grows older, either international understanding or the prejudices and misconceptions that make it difficult for him to understand the global society and problems concerning it are developed in him ", and that which of these two developments occurs depends at least to some extent on the attitudes of his teachers and on the text books, particularly in history, which are put before him. The intention of the European Ministries of Education in this respect is clear. Resolution 64(11) of the Committee of Ministers of the Council of Europe on civic and European education includes these words : " In view of the growing economic, political and social interdependence of the European family of nations and of the tragic results of national isolationism in the recent past, it is essential that future generations should be helped to see their country as part of a civilisation which has long been a cultural whole and which is now striving to achieve greater unity as a society ". The intention of teachers' organisations has long been equally clear. It was, in fact, the teachers' organisations in France and Germany which initiated the continuing process of review of text books, designed to eliminate national bias and the creation of false stereotypes. " To foster a conception of education directed towards the promotion of international understanding and goodwill with a view to safeguarding peace and freedom and respect for human dignity " is the first objective listed in the constitution of the World Federation of Organisations of the Teaching Profession, and it is significant of the growing importance of this objective to teachers that the federation has chosen as the theme of the 1973 Conference in Nairobi " Education for Peace ".

Nevertheless, in spite of this widespread commitment and of the work of the International Schoolbook Institute in Brunswick, much remains to be done before good intentions are translated into classroom practice. The UNESCO handbook on the *Teaching of Geography* (1966), for instance, expresses it thus: " All the same the teaching of geography in such a way as to promote greater international understanding requires reforms, even in those countries where it has long been accepted in the curriculum, and all the more in those which are seeking to modernise their whole school system. " The trend towards a less nationalist approach is clearly increasing, however, and is linked with the growing concern of educational systems for the world environment as a whole. It may be that efforts in the past have been too much concentrated on the secondary school and that the establishment of false stereotypes by the teaching of " drum and trumpet " history in the primary school has rendered them less effective than they might have been. A recent survey of history teaching (Comparative Education VIII 3) indicated that the highest degree of concern for international understanding and the lowest degree of concentration on purely national issues was found in the Scandinavian countries: this may be in some way related to the establishment by the *Forening Norden* as early as 1928 of a committee for the voluntary control of history and geography text books, with a view to removing bias.

The growing importance of exchanges both of teachers and pupils between European nations is evidenced by the fact that the theme chosen for study in 1972 by the European Association of Teachers is: " The problems connected with pedagogical exchanges in Europe ". Such exchanges range from the exchange of correspondence between pupils, through vacation visits, to exchanges of whole classes during the school term, with the pupils working in each others' schools. As Professor Lhombreaud, European Vice-President of the European Association of Teachers, has said, it is these working exchanges involving both home and school which are probably the most fruitful.

Here again, much of the initiative has so far come from voluntary bodies or from local authorities where a town is " twinned " with another town in a different European country. A notable example of such a local arrangement is the tripartite project between Oxfordshire in the United Kingdom, Jura in France, and Bavaria in the Federal Republic of Germany. In some cases, however, central government support is beginning to come forward, and the activities of such official bodies as the Franco-German Youth Office and the Central Bureau for Educational Visits and Exchanges in the United Kingdom are being enabled to expand.

Finally a word should be said about Europe's contribution to education outside Europe. A number of European countries, including the Federal Republic of Germany, Italy and the United Kingdom, have

maintained officially sponsored schools in the other four continents, but by far the greatest achievement in this direction has been that of the French *lycées* overseas. France alone of the European countries has fully integrated the service of her national schools overseas with her national educational system so that service in a *lycée* overseas can easily form part of a French teacher's official career, and the schools themselves have an administrative and financial status which puts them in a class by themselves. By the beginning of this decade, there were French *lycées* or joint Franco-national *lycées* established in at least twenty-seven countries, apart from the colonial or former colonial territories.

Although, in the past, national schools operated by European countries overseas have played a valuable role in meeting the needs not only of the foreign community but also of an élite group of students within the country itself, there is now a tendency to regard them as imposing a foreign cultural influence and even to some extent and in some countries as representing neo-colonialism. Both in South America and in Arab States, governments of national revolution are reluctant to authorise schools to teach a foreign curriculum, and in Africa the influence of the French *baccalauréat* and the English G.C.E. is clearly on the decline. The same influences of cultural nationalism and desire for cultural independence are diminishing the demand for teachers from European countries in the other continents, except for teachers of the English and French languages.

In such circumstances, it is difficult to forecast the trend. There are few signs as yet that the European countries, which are striving to bring their own school systems more closely into harmony, have given serious consideration to any sort of pooling of their national overseas commitments in a common European international system. It is possible, however, that the comparative weakness of all such European systems except the French, and the growing preference of the receiving countries for internationally rather than nationally organised educational aid, may stimulate such a reappraisal. If this were to happen, it would surely not be out of tune with the main theme we have been discussing — the development in education of a genuinely European consciousness and presence — to which each of the member States could contribute from its own cultural resources.

GLOSSARY

The purpose of this glossary is not to attempt a series of internationally accepted definitions but simply to record the sense in which certain terms are used in the present report. It is provided for the convenience of readers in alphabetical order.

Accountability: the requirement that educational systems should justify to public authorities the level of expenditure. See " Productivity ".

Compensatory education: education designed to compensate for the disadvantages from which some children suffer as a result of a home background which is below the average in educative influence. See also " Positive discrimination ".

Comprehensive school: a school which is open to all the children of a neighbourhood irrespective of their academic ability. It does not necessarily follow that a comprehensive school will be open to both boys and girls.

Crèche: an establishment which looks after children while their mothers are at work but without claiming to educate.

Democratisation: the extension of equal educational opportunity to all pupils irrespective of wealth, social class or academic ability.

Differentiation: division of pupils into separate groups based on different levels of ability. See also " Streaming " and " Setting ".

Education, pre-school: education given before the age currently established for the beginning of compulsory primary education, e.g. before five in the United Kingdom, before six in France and the Federal Republic of Germany, before seven in Sweden.

Education, primary: the first stage of compulsory education, beginning at five, six or seven and extending to ten, eleven or twelve years of age.

Education, secondary: the second stage of education — " Lower " or " Short " secondary education ending at fourteen, fifteen or sixteen, and " Upper " or " Long " secondary education at eighteen, nineteen or twenty.

Education, tertiary: all full-time education given after the completion of upper secondary education.

Education, higher: education given in universities or equivalent institutes of advanced learning.

Education, lifelong (Éducation permanente): education given at different stages of the student's life, not necessarily within the period normally covered by primary, secondary or tertiary education.

Education, in-service: a specialised term used to describe life-long education as applied to teachers.

Formal education: education deliberately provided through continuous attendance at institutions as opposed to education acquired informally by individuals for themselves.

Grade repetition: the practice by which a pupil who fails to reach a satisfactory standard at the end of a year's work repeats that year's work in the same class, instead of moving on to the next one with his year group.

Kindergarten: a form of pre-school which aims at the socialisation of the child but without seeking to develop intellectual skills.

Lateral transfer: the transfer of a pupil from one course, " track " or school to another in the same age-range.

Middle school: a separate school with an age-range of three or four years at some stage between nine and fourteen, e.g. the Italian *Scuola Media*, the English middle school.

Normal school: a school for the training of teachers.

Nursery school: a form of pre-school which, while concerned with socialisation of the child, also aims to give children the first introduction to basic skills.

Orientation (Guidance): the process of advising or directing pupils into the appropriate next stage of education or into appropriate employment.

Positive discrimination: the allocation of additional resources to compensatory education, q.v.

Productivity of education: attempts to calculate the productivity of education are attempts to relate the inputs in terms of educational resources to the outputs in terms of educated people.

Setting: the division of pupils into teaching groups for particular subjects depending on their ability in that specific subject. See " Differentiation ".

Streaming: the division of pupils into teaching groups depending on their general over-all ability. See " Differentiation ".

Team-teaching: the planning and operation of an educational programme for a large group of pupils by a team of teachers, as opposed to each teacher being responsible for his own class.

PUBLICATIONS OF THE COUNCIL FOR CULTURAL CO-OPERATION

In the same section — General and technical education

EDUCATION IN EUROPE

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Civics and European Education at the Primary and Secondary Level (1963)
Pupil Guidance - Facts and Problems (1964)
Teacher Training (1965)
School Systems - A guide (1965)
Introducing Europe to Senior Pupils (1966)
The Observation and Guidance Period (1967)
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